

Exchange Compliance Plan 2014 Annual Update



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Introduction



1.1 Purpose

This Chesapeake Bay Nutrient Credit Exchange Program Compliance Plan 2014 Annual Update (“Exchange Compliance Plan”) was prepared by the Virginia Nutrient Credit Exchange Association, Inc. (“The Exchange”) in collaboration with participating owners of regulated facilities (“Participants”). This Exchange Compliance Plan updates and supersedes the Exchange Compliance Plan 2013 Annual Update, which was submitted by The Exchange to the Virginia Department of Environmental Quality (“DEQ”) on February 1, 2013. The original Exchange Compliance Plan was submitted by The Exchange to DEQ on July 31, 2007 and approved by DEQ by letter dated September 7, 2007. Similarly, the Annual Updates for 2008, 2009, 2010, 2011, 2012, and 2013 were all submitted to DEQ in a timely manner and were subsequently approved by DEQ. The DEQ approval letters for previous Annual Updates are attached at Appendix A.

This Exchange Compliance Plan continues a “realistically aggressive” program of work to meet the nitrogen and phosphorus waste load allocations of the Participants’ facilities. This Exchange Compliance Plan utilizes voluntary, market-based nutrient credit trading as a means of achieving compliance more cost-effectively and more expeditiously than would otherwise be possible.

The initial focus of the Exchange Compliance Plan was on the construction of a large number of nutrient removal technology upgrades at Participants’ facilities to achieve compliance with the new Chesapeake Bay nitrogen and phosphorus waste load allocations adopted by the State Water Control Board. Once initial compliance was achieved through this construction program (Compliance Year 2011), the focus shifted to maintaining compliance through an ongoing program of additional facility upgrades over time as is now occurring.

This document serves two primary purposes. First, certain information contained herein is submitted on behalf of the Participants in satisfaction of each Participant’s regulatory obligation under Part I.D. of its general permit as provided in the General VPDES Watershed Permit Regulation for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Bay Watershed in Virginia (9 VAC 25-820-70 Part I.D) (the “General Permit”), which states:

Annual update of compliance plan. Every owner or operator of a facility required to submit a registration statement shall either individually or through the Virginia Nutrient Credit Exchange Association submit updated compliance plans to the department no later than February 1 of each year. The compliance plans shall contain sufficient information to document a plan for the facility to achieve and maintain compliance with applicable total nitrogen and phosphorus individual waste load allocations on the registration list and aggregate waste load allocations in Part I C 3. Compliance plans for facilities that were required to submit a registration statement with the department under Part I G 1 a may rely on the

acquisition of point source credits in accordance with Part I J of this general permit, but not the acquisition of credits through payments into the Water Quality Improvement Fund, to achieve compliance with the individual and combined waste load allocations in each tributary. Compliance plans for expansions or new discharges for facilities that are required to submit a registration statement with the department under Part I G 1 b and c may rely on the acquisition of allocation in accordance with Part II B of this general permit to achieve compliance with the individual and combined waste load allocations in each tributary.

The second purpose of this Exchange Compliance Plan is to serve as a comprehensive document for planning and implementing nutrient credit trading at the basin level through The Exchange. The Exchange is a not-for-profit, voluntary association of owners of regulated facilities that serves as a facilitator of nutrient trading among its members as provided in Virginia Code section 62.1-44.19:17.

1.2 Definitions

The terms used in this Exchange Compliance Plan shall have the same definitions as set forth in The Exchange's Credit Exchange Policy for the Purchase and Sale of Chesapeake Bay Nutrient Credits, which is set forth in Section 8.

Any terms not defined in the Credit Exchange Policy shall have the same definition as provided in 9 VAC 25-820-10, unless a different meaning is intended by the usage herein.

The term "Declared Load", which appears on the river basin graphs, means the maximum delivered load that a facility can discharge and still meet its commitments to either supply or purchase Class A Credits. For a Class A Seller, Declared Load equals Delivered WLA minus Class A Credits supplied. For a Class A Buyer, Declared Load equals Delivered WLA plus Class A Credits purchased.

1.3 Regulatory and Non-Regulatory Information

As mentioned above, the Exchange Compliance Plan serves a dual purpose. Certain information set forth herein is required by the General Permit. This regulatory information is provided (1) in the Compliance Statements for facilities subject to reduced waste load allocations in the York River basin and a portion of the Lower James River basin and (2) in Section 7 of the Exchange Compliance Plan.

Additional information set forth herein is beyond that required by regulation and is not submitted for review and approval as such. This additional information, i.e., non-regulatory information, is presented for the efficiency of gaining multiple uses of a single, more comprehensive document for effective planning by The Exchange and the Participants. Non-regulatory information includes but is not limited to: design flow; projections of actual flow, concentration, load and Credits; future capital projects; preliminary uses of Credits; detailed trading ledgers for projections; The Exchange's Credit Exchange Policy (including its Credit Price Schedule) (Section 8); and a summary and projection of needs for and availability of WQIF grant funding, which is an essential funding source for many of the planned facility upgrades discussed herein (Appendix C).

1.4 Exchange Compliance Plan Content Overview

The Exchange Compliance Plan contains a separate section for each tributary, or basin, as follows:

- Section 2 – Potomac-Shenandoah River Basin
- Section 3 – Rappahannock River Basin
- Section 4 – York River Basin
- Section 5 – James River Basin
- Section 6 – Eastern Shore Basin

The Trading Optimization Model, previously described in The Exchange’s written materials and presentations, was used to generate a plan illustrating nutrient removal projects, Credit generation and Credit exchanges in each basin. Schedules and results are based on owner-provided facility-specific data. The organization and description of the Exchange Compliance Plan components is summarized below.

The Exchange Compliance Plan for the James River basin distinguishes between the James “Upper” and James “Lower” basins. This manner of presentation is convenient in that it (1) simplifies the analysis of the James River exchanges and (2) clearly demonstrates that the partial, one-way restriction on James River trading is met (i.e., facilities in the areas previously identified as upper and middle portions of the basin are not proposing to acquire any Credits generated by facilities in the lower basin). Notwithstanding this two-part presentation, facilities in the lower portion may obtain either Class A or Class B Credits from upstream facilities. In the future, Class A Credit exchanges may be specified in a plan update. Similarly, Class B Credits may be exchanged from the Upper James to the Lower James during any Reconciliation Year as needed. Therefore, despite the distinction between the Upper and Lower James herein, the basin continues to be viewed and managed as a single unit consistent with applicable regulations.

Plan Summary

The Plan Summary is a visual synopsis of each basin. Separate summaries are presented for nitrogen and phosphorus.

For Class A Credit management purposes, the Plan Summary compares the “Declared Load” to the Delivered WLA for all Participants for an 8-year period (currently, through the year 2021). The Declared Load illustration represents the Class A Credit trading positions of Participant facilities. Because Declared Load is a Class A Credit concept, it excludes – by definition – forecasted Class B Credits and thereby tends to overstate the forecasted actual load, which is addressed by the “Expected Load” discussed below.

For overall compliance purposes and The Exchange’s broader management purposes, the Plan Summary also illustrates Expected Load, which is a forecast of the aggregate load of all Participant facilities. In contrast to the Declared Load line, the Expected Load line intentionally ignores the Class A Credit sales decisions of individual Participants and thereby takes into account all Credits projected to be available (i.e., both Class A and Class B Credits). In this respect, the Expected Load line is not representative of Class A Credit commitments that Participants in The Exchange’s voluntary, market-based program are willing to make. However,

it does illustrate projected aggregate performance and more comprehensively reflects the favorable nutrient reduction trends of The Exchange as a whole.

Also for The Exchange's management purposes, green or brown bars at the bottom of the Plan Summary chart are plotted against the secondary Y-axis and represent Class A Credit supplies that exceed Class A Credit requests for a given Compliance Year. Red bars in the same location indicate a Participant's Credits that are held in the WQIF in accordance with 9 VAC 25-820-70 Part I.J.2.e., pending project completion.

Trading Ledger

Each basin's nutrient section presents annual trading ledgers for 2014 through 2018. For each Participant, the Expected Load, Expected Credits, Expected Net Credits, Class A Credit sales, and Class A Credit purchases are presented. The ledger also accounts for projected Class B Credits. Where Class A Credit purchases are not projected to be satisfied using only Class A Credit sales, a portion of each Buyer's demand is anticipated to be satisfied on a pro rata basis using Class B Credits. Aggregate basin information is shown in the blue bar at the top of the ledger.

Based on the number of Credits projected in each market, Class A Credit and Class B Credit sales prices are estimated in accordance with the Credit Exchange Policy. These prices, which include the Class A Buyer price, are displayed at the top of the trading ledger. Since The Exchange "clears the market" by purchasing all Credits generated by Participants as provided in the Credit Exchange Policy, the Class A Seller price reflects the difference between the volume of Credits supplied and the volume of credits purchased in the Class A market.

Where multiple facilities under common ownership or operation have been "bubbled" at the Participant's election pursuant to 9 VAC 25-820-70 Part I.B.2, these facilities are listed in order and highlighted in light blue (and pale yellow, if more than one bubble exists in a consecutive alphabetical listing of Participants/Facilities).

Where a participating facility has provided advance notice of a Private Exchange pursuant to Section 4.9 of the Credit Exchange Policy, an estimate of the amount of Credits to be exchanged is noted as a Preliminary Use of Credits on the applicable Trading Ledger. As of this time, Participants have given notice of the following Private Exchanges factored into this Exchange Compliance Plan:

Potomac

Arlington County WWTP and Arlington County MS4 (Nitrogen/Phosphorus)

Rappahannock

None

York

RockTenn and Bear Island Paper WB (Phosphorus)

James

Honeywell-Hopewell and Hopewell RWTF (Nitrogen)

Chesterfield County and South Central Wastewater Authority (Nitrogen/Phosphorus)

Chesterfield County and Dominion-Chesterfield (Nitrogen/Phosphorus)

Henrico County and South Central Wastewater Authority (Nitrogen/Phosphorus)

Eastern Shore

None

In certain instances, a listed Private Exchange may include terms that are not readily capable of representation within The Exchange's uniform basis and facility-level formats used herein; notwithstanding that formatting limitation, it is the intent of The Exchange to fully accommodate the terms of such Private Exchanges for which Participants have given proper notice.

Facility Summaries and Compliance Statements

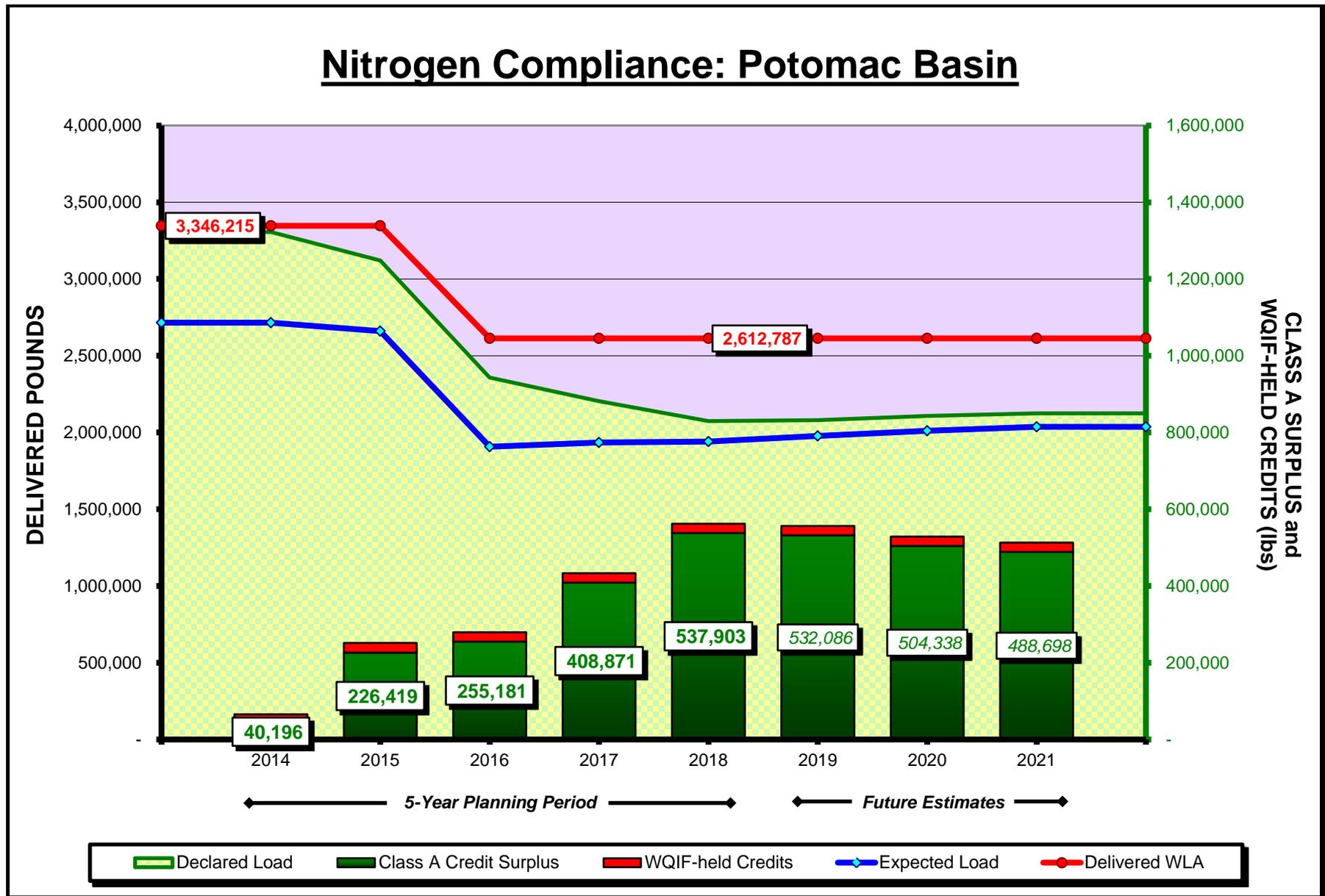
For each basin, facility-specific information is included immediately following the Trading Ledger. This includes Facility Summaries for Nitrogen and for Phosphorus for each facility. For facilities with reduced waste load allocations pursuant to the Chesapeake Bay TMDL, a Compliance Statement is provided with additional information with respect to the timing and manner of achieving compliance.

Development of each Annual Update of the Exchange Compliance Plan requires data collection from Participants on a schedule that provides The Exchange and its advisors adequate time to collect and compile data covering over 100 facilities. The timeline for such data collection is governed by the Nutrient Credit Services Agreement between The Exchange and each Participant. A copy of the agreement is provided as Appendix B hereto. Consequently, the data contained in the Facility Summaries and Compliance Statements was collected approximately five months in advance of submittal of the Annual Update to DEQ and generally would not reflect changed circumstances at the facility level, if any, subsequent to data collection. Data changes subsequent to data collection, if any, would be reflected in the 2015 Annual Update.

SECTION 2

Potomac-Shenandoah River Basin Exchange Compliance Plan





POTOMAC Basin: Nitrogen Credit Ledger

Compliance Year:	2014	Credit Forecasts		Preliminary Use of Credits			Credit Exchange (Pounds)				
Facility Name	Delivered WLA	Expected Load	Expected Credits	In-Bubble Exchange	Private Exchange	WQIF-Held Credits	Expected Net Credits		Class A Sales	Class A* Purchases	Class B** (expected)
								PRICE:	\$ 1.80	\$ 2.65	\$ 0.08
The Exchange (group)	3,346,215	2,714,802	631,413	-	(177,251)	(25,278)	428,884		164,911	(124,715)	388,688
ACSA-Fishersville	21,441	4,929	16,512	(3)	-	-	16,509		5,256	-	11,253
ACSA-Greenville	6,265	2,125	4,140	(4,140)	-	-	-		-	-	-
ACSA-Harriston	2,506	384	2,122	(2,122)	-	-	-		-	-	-
ACSA-Middle River	36,449	17,657	18,792	-	-	-	18,792		5,256	-	13,536
ACSA-Mt. Sidney	3,759	5,081	(1,322)	1,322	-	-	-		-	-	-
ACSA-Stuarts Draft	21,441	4,599	16,842	-	-	-	16,842		5,255	-	11,587
ACSA-Vesper View	2,506	1,087	1,419	(1,419)	-	-	-		-	-	-
ACSA-Weyers Cave	2,680	9,042	(6,362)	6,362	-	-	-		-	-	-
Alexandria S.A.	493,381	493,373	8	-	-	-	8		-	-	8
Arlington Co.	365,467	189,586	175,881	-	(175,881)	-	-		-	-	-
Berryville	5,713	3,428	2,285	-	-	-	2,285		2,057	-	228
Broadway Regional	19,752	16,534	3,218	-	-	-	3,218		-	-	3,218
Dale Service Corp #1	42,029	37,460	4,569	-	-	-	4,569		-	-	4,569
Dale Service Corp #8	42,029	37,460	4,569	-	-	-	4,569		-	-	4,569
Fairfax Co-Noman Cole	612,158	417,546	194,612	-	-	-	194,612		-	-	194,612
FCWSA-Vint Hill	6,712	2,049	4,663	-	-	-	4,663		-	-	4,663
Front Royal	32,648	114,992	(82,344)	-	-	-	(82,344)		-	(82,344)	-
FWSA-Opequon	90,170	48,342	41,828	-	-	-	41,828		-	-	41,828
FWSA-Parkins Mill	45,074	18,480	26,594	-	-	-	26,594		-	-	26,594
HRRSA-North River	111,492	71,290	40,202	-	-	-	40,202		40,202	-	-
KGCSA-Dahlgren S.D.	9,137	7,309	1,828	(488)	-	-	1,340		-	-	1,340
KGCSA-Fairview Beach	1,827	822	1,005	(1,005)	-	-	-		-	-	-
KGCSA-Purkins Corner	1,096	2,589	(1,493)	1,493	-	-	-		-	-	-
Leesburg	101,113	59,859	41,254	-	-	(25,278)	15,976		-	-	15,976
Loudoun Water- Broad Run	111,224	45,703	65,521	-	-	-	65,521		52,417	-	13,104
Luray	8,576	3,457	5,119	-	-	-	5,119		-	-	5,119
Massanutten PSC	8,040	10,517	(2,477)	-	-	-	(2,477)		-	(2,477)	-
Merck	6,432	19,297	(12,865)	-	-	-	(12,865)		-	(12,865)	-
MillerCoors LLC	24,121	24,121	-	-	-	-	-		-	-	-
Mt. Jackson	5,713	4,489	1,224	-	-	-	1,224		-	-	1,224
Purcellville	15,167	11,325	3,842	-	-	-	3,842		1,921	-	1,921
PWCSA-HL Mooney	219,280	164,460	54,820	-	-	-	54,820		38,374	-	16,446
Stafford Co-Aquia	73,093	54,729	18,364	-	-	-	18,364		10,863	-	7,501
Stoney Creek	5,188	5,856	(668)	-	-	-	(668)		-	(959)	291
Strasburg	7,999	32,699	(24,700)	-	-	-	(24,700)		-	(24,700)	-
UOSA	763,096	758,015	5,081	-	-	-	5,081		-	-	5,081
Waynesboro	21,441	14,111	7,330	-	-	-	7,330		3,310	-	4,020
Purchase by Eastern Shore	-	-	-	-	(1,370)	-	(1,370)		-	(1,370)	-

*** For this Compliance Year, 0% of all Class A Credit Purchases are expected to be satisfied using Class B Credits.**

**** Expected Class B Credits are estimates only. Actual Class B Credits—and the resulting Class B sales price—will vary from estimates based on actual Delivered Loads in the Compliance Year.**

POTOMAC Basin: Nitrogen Credit Ledger

Compliance Year:	2015	Credit Forecasts		Preliminary Use of Credits			Credit Exchange (Pounds)				
Facility Name	Delivered WLA	Expected Load	Expected Credits	In-Bubble Exchange	Private Exchange	WQIF-Held Credits	Expected Net Credits	PRICE:	Class A Sales	Class A* Purchases	Class B** (expected)
The Exchange (group)	3,346,215	2,661,356	684,859	-	(3,222)	(25,278)	656,359	\$ 0.44	\$ 3.05	\$ 0.03	
ACSA-Fishersville	21,441	5,176	16,265	(888)	-	-	15,377		13,307	-	2,070
ACSA-Greenville	6,265	2,231	4,034	(4,034)	-	-	-		-	-	-
ACSA-Harriston	2,506	403	2,103	(2,103)	-	-	-		-	-	-
ACSA-Middle River	36,449	18,539	17,910	-	-	-	17,910		13,307	-	4,603
ACSA-Mt. Sidney	3,759	5,335	(1,576)	1,576	-	-	-		-	-	-
ACSA-Stuarts Draft	21,441	4,829	16,612	-	-	-	16,612		13,306	-	3,306
ACSA-Vesper View	2,506	1,141	1,365	(1,365)	-	-	-		-	-	-
ACSA-Weyers Cave	2,680	9,494	(6,814)	6,814	-	-	-		-	-	-
Alexandria S.A.	493,381	493,381	-	-	-	-	-		-	-	-
Arlington Co.	365,467	190,271	175,196	-	(816)	-	174,380		-	-	174,380
Berryville	5,713	3,510	2,203	-	-	-	2,203		1,983	-	220
Broadway Regional	19,752	16,685	3,067	-	-	-	3,067		-	-	3,067
Dale Service Corp #1	42,029	38,374	3,655	-	-	-	3,655		-	-	3,655
Dale Service Corp #8	42,029	38,374	3,655	-	-	-	3,655		-	-	3,655
Fairfax Co-Noman Cole	612,158	423,942	188,216	-	-	-	188,216		75,286	-	112,930
FCWSA-Vint Hill	6,712	2,120	4,592	-	-	-	4,592		-	-	4,592
Front Royal	32,648	27,547	5,101	-	-	-	5,101		1,530	-	3,571
FWSA-Opequon	90,170	50,032	40,138	-	-	-	40,138		20,000	-	20,138
FWSA-Parkins Mill	45,074	19,861	25,213	-	-	-	25,213		6,000	-	19,213
HRRSA-North River	111,492	74,346	37,146	-	-	-	37,146		37,146	-	-
KGCSA-Dahlgren S.D.	9,137	7,309	1,828	(640)	-	-	1,188		-	-	1,188
KGCSA-Fairview Beach	1,827	822	1,005	(1,005)	-	-	-		-	-	-
KGCSA-Purkins Corner	1,096	2,741	(1,645)	1,645	-	-	-		-	-	-
Leesburg	101,113	61,375	39,738	-	-	(25,278)	14,460		-	-	14,460
Loudoun Water- Broad Run	111,224	80,890	30,334	-	-	-	30,334		27,301	-	3,033
Luray	8,576	3,498	5,078	-	-	-	5,078		4,824	-	254
Massanutten PSC	8,040	10,517	(2,477)	-	-	-	(2,477)		-	(2,477)	-
Merck	6,432	19,297	(12,865)	-	-	-	(12,865)		-	(12,865)	-
MillerCoors LLC	24,121	24,121	-	-	-	-	-		-	-	-
Mt. Jackson	5,713	4,897	816	-	-	-	816		-	-	816
Purcellville	15,167	12,437	2,730	-	-	-	2,730		1,365	-	1,365
PWCSA-HL Mooney	219,280	169,029	50,251	-	-	-	50,251		35,176	-	15,075
Stafford Co-Aquia	73,093	57,196	15,897	-	-	-	15,897		14,307	-	1,590
Stoney Creek	5,188	5,856	(668)	-	-	-	(668)		-	(959)	291
Strasburg	7,999	33,071	(25,072)	-	-	-	(25,072)		-	(25,072)	-
UOSA	763,096	726,628	36,468	-	-	-	36,468		-	-	36,468
Waynesboro	21,441	16,081	5,360	-	-	-	5,360		5,360	-	-
Purchase by Eastern Shore	-	-	-	-	(2,406)	-	(2,406)		-	(2,406)	-

*** For this Compliance Year, 0% of all Class A Credit Purchases are expected to be satisfied using Class B Credits.**

**** Expected Class B Credits are estimates only. Actual Class B Credits—and the resulting Class B sales price—will vary from estimates based on actual Delivered Loads in the Compliance Year.**

POTOMAC Basin: Nitrogen Credit Ledger

Compliance Year:	2016	Credit Forecasts		Preliminary Use of Credits			Expected Net Credits	Credit Exchange (Pounds)			
		Facility Name	Delivered WLA	Expected Load	Expected Credits	In-Bubble Exchange		Private Exchange	WQIF-Held Credits	Class A Sales	Class A* Purchases
								PRICE:	\$ 0.16	\$ 3.50	\$ 0.01
The Exchange (group)	2,612,606	1,907,422	705,184	-	(2,595)	(24,365)	678,224	269,180	(13,999)	423,043	
ACSA-Fishersville	4,873	1,235	3,638	(3,008)	-	-	630	630	-	-	
ACSA-Greenville	1,424	532	892	-	-	-	892	892	-	-	
ACSA-Harriston	1,025	173	852	(852)	-	-	-	-	-	-	
ACSA-Middle River	8,284	4,424	3,860	-	-	-	3,860	2,412	-	1,448	
ACSA-Mt. Sidney	854	1,273	(419)	419	-	-	-	-	-	-	
ACSA-Stuarts Draft	2,436	576	1,860	-	-	-	1,860	1,860	-	-	
ACSA-Vesper View	1,025	490	535	(535)	-	-	-	-	-	-	
ACSA-Weyers Cave	1,462	5,438	(3,976)	3,976	-	-	-	-	-	-	
Alexandria S.A.	493,381	359,802	133,579	-	-	-	133,579	66,790	-	66,789	
Arlington Co.	365,467	191,627	173,840	-	(816)	-	173,024	-	-	173,024	
Berryville	5,373	3,300	2,073	-	-	-	2,073	1,969	-	104	
Broadway Regional	5,601	4,796	805	-	-	-	805	-	-	805	
Dale Service Corp #1	42,029	39,288	2,741	-	-	-	2,741	-	-	2,741	
Dale Service Corp #8	42,029	39,288	2,741	-	-	-	2,741	-	-	2,741	
Fairfax Co-Noman Cole	612,158	426,317	185,841	-	-	-	185,841	74,336	-	111,505	
FCWSA-Vint Hill	579	195	384	-	-	-	384	-	-	384	
Front Royal	29,725	25,192	4,533	-	-	-	4,533	1,360	-	3,173	
FWSA-Opequon	31,681	18,292	13,389	-	-	-	13,389	4,000	-	9,389	
FWSA-Parkins Mill	15,837	8,017	7,820	-	-	-	7,820	1,000	-	6,820	
HRRSA-North River	55,746	36,664	19,082	-	-	-	19,082	19,082	-	-	
KGCSA-Dahlgren S.D.	9,137	7,309	1,828	(549)	-	-	1,279	-	-	1,279	
KGCSA-Fairview Beach	1,827	731	1,096	(1,096)	-	-	-	-	-	-	
KGCSA-Purkins Corner	1,096	2,741	(1,645)	1,645	-	-	-	-	-	-	
Leesburg	97,458	61,135	36,323	-	-	(24,365)	11,958	-	-	11,958	
Loudoun Water- Broad Run	119,264	75,895	43,369	-	-	-	43,369	39,032	-	4,337	
Luray	8,187	1,669	6,518	-	-	-	6,518	6,518	-	-	
Massanutten PSC	6,030	8,107	(2,077)	-	-	-	(2,077)	-	(2,077)	-	
Merck	4,824	14,466	(9,642)	-	-	-	(9,642)	-	(9,642)	-	
MillerCoors LLC	18,091	18,091	-	-	-	-	-	-	-	-	
Mt. Jackson	2,900	2,071	829	-	-	-	829	-	-	829	
Purcellville	13,157	9,297	3,860	-	-	-	3,860	1,930	-	1,930	
PWCSA-HL Mooney	219,280	171,313	47,967	-	-	-	47,967	33,577	-	14,390	
Stafford Co-Aquia	73,093	59,663	13,430	-	-	-	13,430	12,087	-	1,343	
Stoney Creek	2,710	3,059	(349)	-	-	-	(349)	-	(501)	152	
Strasburg	5,134	3,536	1,598	-	-	-	1,598	-	-	1,598	
UOSA	302,607	296,303	6,304	-	-	-	6,304	-	-	6,304	
Waynesboro	6,822	5,117	1,705	-	-	-	1,705	1,705	-	-	
Purchase by Eastern Shore	-	-	-	-	(1,779)	-	(1,779)	-	(1,779)	-	

* For this Compliance Year, 0% of all Class A Credit Purchases are expected to be satisfied using Class B Credits.

** Expected Class B Credits are estimates only. Actual Class B Credits—and the resulting Class B sales price—will vary from estimates based on actual Delivered Loads in the Compliance Year.

POTOMAC Basin: Nitrogen Credit Ledger

Compliance Year:	2017	Credit Forecasts		Preliminary Use of Credits			Expected Net Credits	Credit Exchange (Pounds)			
		Expected Load	Expected Credits	In-Bubble Exchange	Private Exchange	WQIF-Held Credits		Class A Sales	Class A* Purchases	Class B** (expected)	
Facility Name	Delivered WLA										
								PRICE:	\$ 0.11	\$ 3.75	\$ 0.02
The Exchange (group)	2,612,606	1,935,475	677,131	-	(2,595)	(24,365)	650,171		422,877	(14,006)	241,300
ACSA-Fishersville	4,873	2,075	2,798	(2,798)	-	-	-	-	-	-	-
ACSA-Greenville	1,424	487	937	(865)	-	-	72	72	-	-	-
ACSA-Harriston	1,025	159	866	-	-	-	866	802	-	-	64
ACSA-Middle River	8,284	5,309	2,975	-	-	-	2,975	802	-	-	2,173
ACSA-Mt. Sidney	854	1,295	(441)	441	-	-	-	-	-	-	-
ACSA-Stuarts Draft	2,436	896	1,540	-	-	-	1,540	802	-	-	738
ACSA-Vesper View	1,025	527	498	-	-	-	498	498	-	-	-
ACSA-Weyers Cave	1,462	4,684	(3,222)	3,222	-	-	-	-	-	-	-
Alexandria S.A.	493,381	363,640	129,741	-	-	-	129,741	65,000	-	-	64,741
Arlington Co.	365,467	192,891	172,576	-	(816)	-	171,760	171,760	-	-	-
Berryville	5,373	3,070	2,303	-	-	-	2,303	2,100	-	-	203
Broadway Regional	5,601	4,860	741	-	-	-	741	-	-	-	741
Dale Service Corp #1	42,029	39,288	2,741	-	-	-	2,741	-	-	-	2,741
Dale Service Corp #8	42,029	39,288	2,741	-	-	-	2,741	-	-	-	2,741
Fairfax Co-Noman Cole	612,158	433,079	179,079	-	-	-	179,079	71,632	-	-	107,447
FCWSA-Vint Hill	579	207	372	-	-	-	372	-	-	-	372
Front Royal	29,725	25,247	4,478	-	-	-	4,478	1,120	-	-	3,358
FWSA-Opequon	31,681	19,004	12,677	-	-	-	12,677	3,000	-	-	9,677
FWSA-Parkins Mill	15,837	9,205	6,632	-	-	-	6,632	1,000	-	-	5,632
HRRSA-North River	55,746	36,664	19,082	-	-	-	19,082	19,082	-	-	-
KGCSA-Dahlgren S.D.	9,137	6,091	3,046	-	-	-	3,046	-	-	-	3,046
KGCSA-Fairview Beach	1,827	731	1,096	(427)	-	-	669	-	-	-	669
KGCSA-Purkins Corner	1,096	1,523	(427)	427	-	-	-	-	-	-	-
Leesburg	97,458	63,192	34,266	-	-	(24,365)	9,901	-	-	-	9,901
Loudoun Water- Broad Run	119,264	86,738	32,526	-	-	-	32,526	32,526	-	-	-
Luray	8,187	1,688	6,499	-	-	-	6,499	6,499	-	-	-
Massanutten PSC	6,030	8,107	(2,077)	-	-	-	(2,077)	-	(2,077)	-	-
Merck	4,824	14,473	(9,649)	-	-	-	(9,649)	-	(9,649)	-	-
MillerCoors LLC	18,091	18,091	-	-	-	-	-	-	-	-	-
Mt. Jackson	2,900	2,154	746	-	-	-	746	-	-	-	746
Purcellville	13,157	7,894	5,263	-	-	-	5,263	2,632	-	-	2,632
PWCSA-HL Mooney	219,280	173,597	45,683	-	-	-	45,683	31,978	-	-	13,705
Stafford Co-Aquia	73,093	62,129	10,964	-	-	-	10,964	9,868	-	-	1,096
Stoney Creek	2,710	3,059	(349)	-	-	-	(349)	-	(501)	-	152
Strasburg	5,134	3,575	1,559	-	-	-	1,559	-	-	-	1,559
UOSA	302,607	295,441	7,166	-	-	-	7,166	-	-	-	7,166
Waynesboro	6,822	5,117	1,705	-	-	-	1,705	1,705	-	-	-
Purchase by Eastern Shore	-	-	-	-	(1,779)	-	(1,779)	-	(1,779)	-	-

* For this Compliance Year, 0% of all Class A Credit Purchases are expected to be satisfied using Class B Credits.

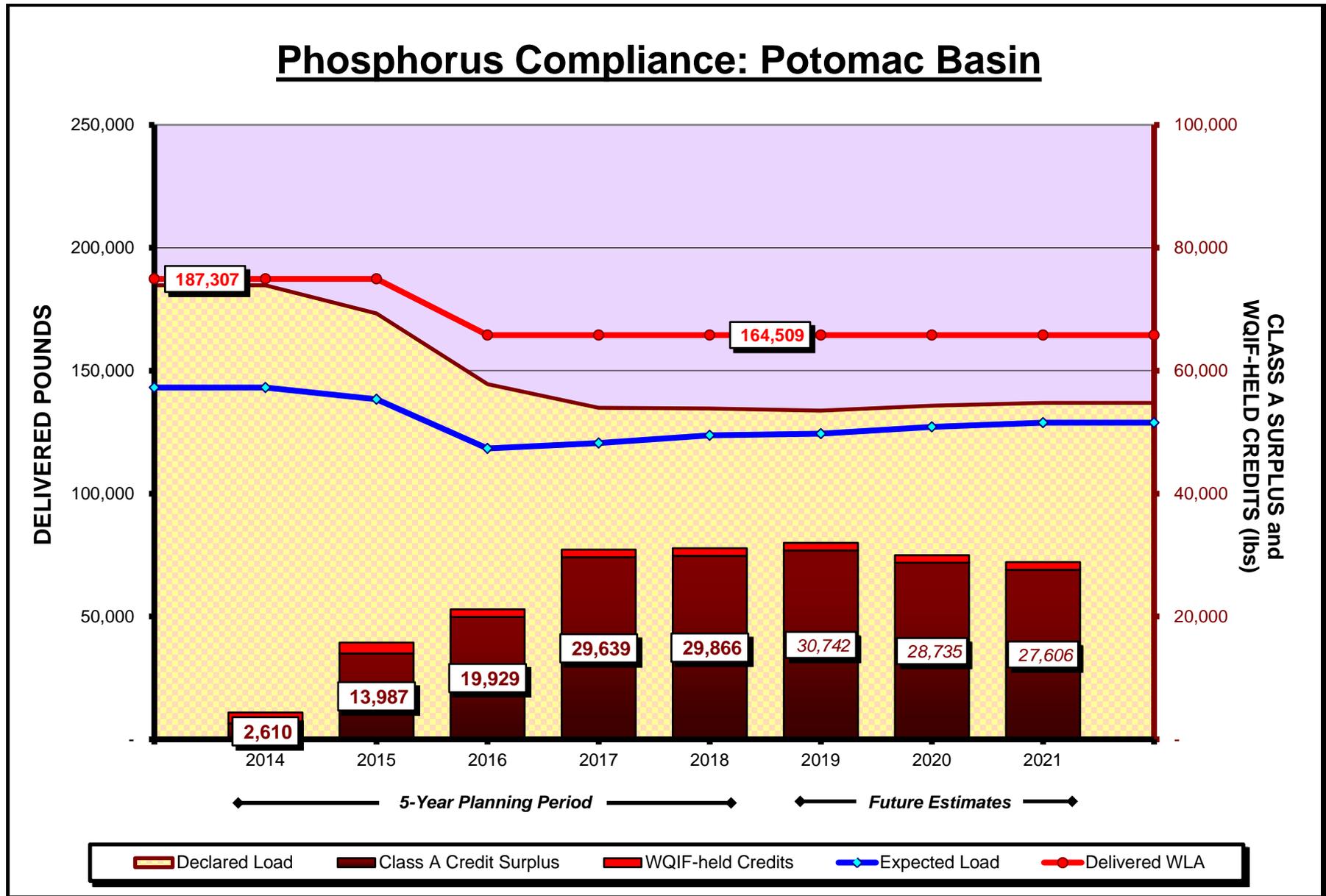
** Expected Class B Credits are estimates only. Actual Class B Credits—and the resulting Class B sales price—will vary from estimates based on actual Delivered Loads in the Compliance Year.

POTOMAC Basin: Nitrogen Credit Ledger

Compliance Year:	2018	Credit Forecasts		Preliminary Use of Credits			Expected Net Credits	Credit Exchange (Pounds)			
		Facility Name	Delivered WLA	Expected Load	Expected Credits	In-Bubble Exchange		Private Exchange	WQIF-Held Credits	Class A Sales	Class A* Purchases
								PRICE:	\$ 0.07	\$ 3.78	\$ 0.04
The Exchange (group)	2,612,787	1,940,721	672,066	-	(6,524)	(24,365)	641,177		549,797	(11,894)	103,274
ACSA-Fishersville	4,873	2,075	2,798	(2,798)	-	-	-	-	-	-	-
ACSA-Greenville	1,424	609	815	-	-	-	815	815	-	-	-
ACSA-Harriston	1,025	141	884	(865)	-	-	19	19	-	-	-
ACSA-Middle River	8,284	6,689	1,595	-	-	-	1,595	989	-	-	606
ACSA-Mt. Sidney	854	1,295	(441)	441	-	-	-	-	-	-	-
ACSA-Stuarts Draft	2,436	1,218	1,218	-	-	-	1,218	989	-	-	229
ACSA-Vesper View	1,025	502	523	-	-	-	523	523	-	-	-
ACSA-Weyers Cave	1,462	4,684	(3,222)	3,222	-	-	-	-	-	-	-
Alexandria S.A.	493,381	367,386	125,995	-	-	-	125,995	94,496	-	-	31,499
Arlington Co.	365,467	189,129	176,338	-	(6,524)	-	169,814	169,814	-	-	-
Berryville	5,373	3,070	2,303	-	-	-	2,303	2,000	-	-	303
Broadway Regional	5,601	4,924	677	-	-	-	677	-	-	-	677
Dale Service Corp #1	42,029	39,288	2,741	-	-	-	2,741	-	-	-	2,741
Dale Service Corp #8	42,029	39,288	2,741	-	-	-	2,741	-	-	-	2,741
Fairfax Co-Noman Cole	612,158	455,738	156,420	-	-	-	156,420	156,420	-	-	-
FCWSA-Vint Hill	579	219	360	-	-	-	360	-	-	-	360
Front Royal	29,725	25,303	4,422	-	-	-	4,422	1,056	-	-	3,366
FWSA-Opequon	31,681	19,717	11,964	-	-	-	11,964	-	-	-	11,964
FWSA-Parkins Mill	15,837	8,314	7,523	-	-	-	7,523	-	-	-	7,523
HRRSA-North River	55,746	36,664	19,082	-	-	-	19,082	19,082	-	-	-
KGCSA-Dahlgren S.D.	9,137	6,700	2,437	-	-	-	2,437	-	-	-	2,437
KGCSA-Fairview Beach	1,827	731	1,096	(427)	-	-	669	-	-	-	669
KGCSA-Purkins Corner	1,096	1,523	(427)	427	-	-	-	-	-	-	-
Leesburg	97,458	65,326	32,132	-	-	(24,365)	7,767	-	-	-	7,767
Loudoun Water- Broad Run	119,264	59,632	59,632	-	-	-	59,632	56,632	-	-	3,000
Luray	8,187	1,688	6,499	-	-	-	6,499	6,499	-	-	-
Massanutten PSC	6,030	8,107	(2,077)	-	-	-	(2,077)	-	(2,077)	-	-
Merck	4,824	14,473	(9,649)	-	-	-	(9,649)	-	(9,649)	-	-
MillerCoors LLC	18,091	18,091	-	-	-	-	-	-	-	-	-
Mt. Jackson	2,900	2,237	663	-	-	-	663	-	-	-	663
Purcellville	13,157	9,648	3,509	-	-	-	3,509	2,023	-	-	1,486
PWCSA-HL Mooney	219,280	175,881	43,399	-	-	-	43,399	30,379	-	-	13,020
Stafford Co-Aquia	73,093	64,596	8,497	-	-	-	8,497	7,647	-	-	850
Stoney Creek	2,891	3,059	(168)	-	-	-	(168)	-	(168)	-	-
Strasburg	5,134	3,614	1,520	-	-	-	1,520	-	-	-	1,520
UOSA	302,607	292,754	9,853	-	-	-	9,853	-	-	-	9,853
Waynesboro	6,822	6,408	414	-	-	-	414	414	-	-	-
Purchase by Eastern Shore	-	-	-	-	-	-	-	-	-	-	-

* For this Compliance Year, 0% of all Class A Credit Purchases are expected to be satisfied using Class B Credits.

** Expected Class B Credits are estimates only. Actual Class B Credits—and the resulting Class B sales price—will vary from estimates based on actual Delivered Loads in the Compliance Year.



POTOMAC Basin: Phosphorus Credit Ledger

Compliance Year:	2014	Credit Forecasts		Preliminary Use of Credits			Credit Exchange (Pounds)				
Facility Name	Delivered WLA	Expected Load	Expected Credits	In-Bubble Exchange	Private Exchange	WQIF-Held Credits	Expected Net Credits	PRICE:	Class A Sales	Class A* Purchases	Class B** (expected)
The Exchange (group)	187,307	143,092	44,215	-	(12,208)	(1,759)	30,248	\$ 3.67	\$ 4.60	\$ 0.33	27,638
ACSA-Fishersville	2,814	725	2,089	(52)	-	-	2,037	-	-	-	2,037
ACSA-Greenville	1,466	654	812	(812)	-	-	-	-	-	-	-
ACSA-Harriston	586	277	309	(309)	-	-	-	-	-	-	-
ACSA-Middle River	4,784	2,648	2,136	-	-	-	2,136	-	-	-	2,136
ACSA-Mt. Sidney	879	983	(104)	104	-	-	-	-	-	-	-
ACSA-Stuarts Draft	2,814	507	2,307	-	-	-	2,307	-	-	-	2,307
ACSA-Vesper View	586	425	161	(161)	-	-	-	-	-	-	-
ACSA-Weyers Cave	352	1,582	(1,230)	1,230	-	-	-	-	-	-	-
Alexandria S.A.	29,603	20,996	8,607	-	-	-	8,607	-	-	-	8,607
Arlington Co.	21,928	9,898	12,030	-	(12,030)	-	-	-	-	-	-
Berryville	492	295	197	-	-	-	197	177	-	-	20
Broadway Regional	1,703	1,541	162	-	-	-	162	-	-	-	162
Dale Service Corp #1	2,522	2,248	274	-	-	-	274	-	-	-	274
Dale Service Corp #8	2,522	2,248	274	-	-	-	274	-	-	-	274
Fairfax Co-Noman Cole	36,729	25,053	11,676	-	-	-	11,676	11,676	-	-	-
FCWSA-Vint Hill	382	120	262	-	-	-	262	-	-	-	262
Front Royal	2,814	11,228	(8,414)	-	-	-	(8,414)	-	(8,414)	-	-
FWSA-Opequon	8,864	5,030	3,834	-	-	-	3,834	-	-	-	3,834
FWSA-Parkins Mill	3,518	1,442	2,076	-	-	-	2,076	-	-	-	2,076
HRRSA-North River	14,633	9,193	5,440	-	-	-	5,440	5,440	-	-	-
KGCSA-Dahlgren S.D.	914	548	366	(123)	-	-	243	-	-	-	243
KGCSA-Fairview Beach	183	82	101	-	-	-	101	-	-	-	101
KGCSA-Purkins Corner	110	233	(123)	123	-	-	-	-	-	-	-
Leesburg	7,035	4,165	2,870	-	-	(1,759)	1,111	-	-	-	1,111
Loudoun Water- Broad Run	2,580	1,060	1,520	-	-	-	1,520	1,216	-	-	304
Luray	1,126	303	823	-	-	-	823	823	-	-	-
Massanutten PSC	1,055	6,568	(5,513)	-	-	-	(5,513)	-	(5,513)	-	-
Merck	844	3,377	(2,533)	-	-	-	(2,533)	-	(2,533)	-	-
MillerCoors LLC	3,166	3,166	-	-	-	-	-	-	-	-	-
Mt. Jackson	492	387	105	-	-	-	105	-	-	-	105
Purcellville	1,056	788	268	-	-	-	268	134	-	-	134
PWCSA-HL Mooney	13,157	9,868	3,289	-	-	-	3,289	2,960	-	-	329
Stafford Co-Aquia	4,386	3,284	1,102	-	-	-	1,102	596	-	-	506
Stoney Creek	473	1,026	(553)	-	-	-	(553)	-	(604)	-	51
Strasburg	689	3,859	(3,170)	-	-	-	(3,170)	-	(3,170)	-	-
UOSA	7,236	4,816	2,420	-	-	-	2,420	-	-	-	2,420
Waynesboro	2,814	2,469	345	-	-	-	345	-	-	-	345
Purchase by Eastern Shore	-	-	-	-	(178)	-	(178)	-	(178)	-	-

*** For this Compliance Year, 0% of all Class A Credit Purchases are expected to be satisfied using Class B Credits.**

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POTOMAC Basin: Phosphorus Credit Ledger

Compliance Year:	2015	Credit Forecasts		Preliminary Use of Credits			Expected Net Credits	Credit Exchange (Pounds)				
		Facility Name	Delivered WLA	Expected Load	Expected Credits	In-Bubble Exchange		Private Exchange	WQIF-Held Credits		Class A Sales	Class A* Purchases
								PRICE:	\$ 2.09	\$ 4.93	\$ 0.18	
The Exchange (group)	187,307	138,343	48,964	-	(361)	(1,759)	46,844		26,459	(12,472)	32,857	
ACSA-Fishersville	2,814	761	2,053	(250)	-	-	1,803		1,624	-	179	
ACSA-Greenville	1,466	687	779	(779)	-	-	-		-	-	-	
ACSA-Harriston	586	291	295	(295)	-	-	-		-	-	-	
ACSA-Middle River	4,784	2,781	2,003	-	-	-	2,003		1,624	-	379	
ACSA-Mt. Sidney	879	1,033	(154)	154	-	-	-		-	-	-	
ACSA-Stuarts Draft	2,814	532	2,282	-	-	-	2,282		1,622	-	660	
ACSA-Vesper View	586	446	140	(140)	-	-	-		-	-	-	
ACSA-Weyers Cave	352	1,662	(1,310)	1,310	-	-	-		-	-	-	
Alexandria S.A.	29,603	21,358	8,245	-	-	-	8,245		-	-	8,245	
Arlington Co.	21,928	9,319	12,609	-	(105)	-	12,504		-	-	12,504	
Berryville	492	303	189	-	-	-	189		170	-	19	
Broadway Regional	1,703	1,555	148	-	-	-	148		-	-	148	
Dale Service Corp #1	2,522	2,302	220	-	-	-	220		-	-	220	
Dale Service Corp #8	2,522	2,302	220	-	-	-	220		-	-	220	
Fairfax Co-Noman Cole	36,729	25,437	11,292	-	-	-	11,292		11,292	-	-	
FCWSA-Vint Hill	382	125	257	-	-	-	257		-	-	257	
Front Royal	2,814	3,166	(352)	-	-	-	(352)		-	(352)	-	
FWSA-Opequon	8,864	5,206	3,658	-	-	-	3,658		-	-	3,658	
FWSA-Parkins Mill	3,518	1,653	1,865	-	-	-	1,865		-	-	1,865	
HRRSA-North River	14,633	9,587	5,046	-	-	-	5,046		5,046	-	-	
KGCSA-Dahlgren S.D.	914	548	366	(137)	-	-	229		-	-	229	
KGCSA-Fairview Beach	183	82	101	-	-	-	101		-	-	101	
KGCSA-Purkins Corner	110	247	(137)	137	-	-	-		-	-	-	
Leesburg	7,035	4,270	2,765	-	-	(1,759)	1,006		-	-	1,006	
Loudoun Water- Broad Run	2,580	1,876	704	-	-	-	704		634	-	70	
Luray	1,126	306	820	-	-	-	820		779	-	41	
Massanutten PSC	1,055	6,568	(5,513)	-	-	-	(5,513)		-	(5,513)	-	
Merck	844	3,377	(2,533)	-	-	-	(2,533)		-	(2,533)	-	
MillerCoors LLC	3,166	3,166	-	-	-	-	-		-	-	-	
Mt. Jackson	492	422	70	-	-	-	70		-	-	70	
Purcellville	1,056	865	191	-	-	-	191		95	-	96	
PWCSA-HL Mooney	13,157	10,142	3,015	-	-	-	3,015		2,714	-	301	
Stafford Co-Aquia	4,386	3,432	954	-	-	-	954		859	-	95	
Stoney Creek	473	1,026	(553)	-	-	-	(553)		-	(604)	51	
Strasburg	689	3,903	(3,214)	-	-	-	(3,214)		-	(3,214)	-	
UOSA	7,236	4,793	2,443	-	-	-	2,443		-	-	2,443	
Waynesboro	2,814	2,814	-	-	-	-	-		-	-	-	
Purchase by Eastern Shore	-	-	-	-	(256)	-	(256)		-	(256)	-	

* For this Compliance Year, 0% of all Class A Credit Purchases are expected to be satisfied using Class B Credits.

** Expected Class B Credits are estimates only. Actual Class B Credits—and the resulting Class B sales price—will vary from estimates based on actual Delivered Loads in the Compliance Year.

POTOMAC Basin: Phosphorus Credit Ledger

Compliance Year:	2016	Credit Forecasts		Preliminary Use of Credits			Credit Exchange (Pounds)				
Facility Name	Delivered WLA	Expected Load	Expected Credits	In-Bubble Exchange	Private Exchange	WQIF-Held Credits	Expected Net Credits		Class A Sales	Class A* Purchases	Class B** (expected)
								PRICE:	\$ 1.18	\$ 5.27	\$ 0.14
The Exchange (group)	164,481	118,306	46,175	-	(351)	(1,234)	44,590		26,541	(6,612)	24,661
ACSA-Fishersville	1,974	560	1,414	(300)	-	-	1,114		1,068	-	46
ACSA-Greenville	1,028	506	522	(522)	-	-	-		-	-	-
ACSA-Harriston	411	214	197	(197)	-	-	-		-	-	-
ACSA-Middle River	3,355	2,048	1,307	-	-	-	1,307		1,068	-	239
ACSA-Mt. Sidney	617	760	(143)	143	-	-	-		-	-	-
ACSA-Stuarts Draft	1,974	392	1,582	-	-	-	1,582		1,067	-	515
ACSA-Vesper View	411	328	83	(83)	-	-	-		-	-	-
ACSA-Weyers Cave	242	1,201	(959)	959	-	-	-		-	-	-
Alexandria S.A.	29,603	21,588	8,015	-	-	-	8,015		4,008	-	4,007
Arlington Co.	21,928	9,502	12,426	-	(105)	-	12,321		-	-	12,321
Berryville	339	208	131	-	-	-	131		118	-	13
Broadway Regional	1,172	1,085	87	-	-	-	87		-	-	87
Dale Service Corp #1	2,522	2,357	165	-	-	-	165		-	-	165
Dale Service Corp #8	2,522	2,357	165	-	-	-	165		-	-	165
Fairfax Co-Noman Cole	36,729	25,579	11,150	-	-	-	11,150		11,150	-	-
FCWSA-Vint Hill	148	51	97	-	-	-	97		-	-	97
Front Royal	1,974	2,230	(256)	-	-	-	(256)		-	(256)	-
FWSA-Opequon	6,217	3,799	2,418	-	-	-	2,418		-	-	2,418
FWSA-Parkins Mill	2,467	1,332	1,135	-	-	-	1,135		-	-	1,135
HRRSA-North River	10,262	6,631	3,631	-	-	-	3,631		3,631	-	-
KGCSA-Dahlgren S.D.	914	548	366	(131)	-	-	235		-	-	235
KGCSA-Fairview Beach	179	72	107	-	-	-	107		-	-	107
KGCSA-Purkins Corner	106	237	(131)	131	-	-	-		-	-	-
Leesburg	4,934	3,095	1,839	-	-	(1,234)	605		-	-	605
Loudoun Water- Broad Run	1,809	1,151	658	-	-	-	658		592	-	66
Luray	789	372	417	-	-	-	417		417	-	-
Massanutten PSC	727	4,646	(3,919)	-	-	-	(3,919)		-	(3,919)	-
Merck	592	2,367	(1,775)	-	-	-	(1,775)		-	(1,775)	-
MillerCoors LLC	2,220	2,220	-	-	-	-	-		-	-	-
Mt. Jackson	339	161	178	-	-	-	178		-	-	178
Purcellville	727	513	214	-	-	-	214		107	-	107
PWCSA-HL Mooney	13,157	10,279	2,878	-	-	-	2,878		2,590	-	288
Stafford Co-Aquia	4,386	3,580	806	-	-	-	806		725	-	81
Stoney Creek	325	706	(381)	-	-	-	(381)		-	(416)	35
Strasburg	474	436	38	-	-	-	38		-	-	38
UOSA	4,934	3,221	1,713	-	-	-	1,713		-	-	1,713
Waynesboro	1,974	1,974	-	-	-	-	-		-	-	-
Purchase by Eastern Shore	-	-	-	-	(246)	-	(246)		-	(246)	-

*** For this Compliance Year, 0% of all Class A Credit Purchases are expected to be satisfied using Class B Credits.**

**** Expected Class B Credits are estimates only. Actual Class B Credits—and the resulting Class B sales price—will vary from estimates based on actual Delivered Loads in the Compliance Year.**

POTOMAC Basin: Phosphorus Credit Ledger

Compliance Year:	2017	Credit Forecasts		Preliminary Use of Credits			Credit Exchange (Pounds)				
Facility Name	Delivered WLA	Expected Load	Expected Credits	In-Bubble Exchange	Private Exchange	WQIF-Held Credits	Expected Net Credits		Class A Sales	Class A* Purchases	Class B** (expected)
								PRICE:	\$ 0.92	\$ 5.65	\$ 0.29
The Exchange (group)	164,481	120,585	43,896	-	(334)	(1,234)	42,328		36,240	(6,601)	12,689
ACSA-Fishersville	1,974	840	1,134	(1,134)	-	-	-	-	-	-	-
ACSA-Greenville	1,028	494	534	(83)	-	-	451	451	-	-	
ACSA-Harriston	411	273	138	-	-	-	138	138	-	-	
ACSA-Middle River	3,355	2,150	1,205	-	-	-	1,205	445	-	760	
ACSA-Mt. Sidney	617	828	(211)	211	-	-	-	-	-	-	
ACSA-Stuarts Draft	1,974	726	1,248	-	-	-	1,248	444	-	804	
ACSA-Vesper View	411	325	86	-	-	-	86	86	-	-	
ACSA-Weyers Cave	242	1,248	(1,006)	1,006	-	-	-	-	-	-	
Alexandria S.A.	29,603	21,818	7,785	-	-	-	7,785	3,900	-	3,885	
Arlington Co.	21,928	9,685	12,243	-	(105)	-	12,138	12,138	-	-	
Berryville	339	194	145	-	-	-	145	110	-	35	
Broadway Regional	1,172	1,099	73	-	-	-	73	-	-	73	
Dale Service Corp #1	2,522	2,357	165	-	-	-	165	-	-	165	
Dale Service Corp #8	2,522	2,357	165	-	-	-	165	-	-	165	
Fairfax Co-Noman Cole	36,729	25,985	10,744	-	-	-	10,744	10,744	-	-	
FCWSA-Vint Hill	148	53	95	-	-	-	95	-	-	95	
Front Royal	1,974	2,235	(261)	-	-	-	(261)	-	(261)	-	
FWSA-Opequon	6,217	3,947	2,270	-	-	-	2,270	-	-	2,270	
FWSA-Parkins Mill	2,467	1,529	938	-	-	-	938	-	-	938	
HRRSA-North River	10,262	6,631	3,631	-	-	-	3,631	3,631	-	-	
KGCSA-Dahlgren S.D.	914	457	457	(40)	-	-	417	-	-	417	
KGCSA-Fairview Beach	179	72	107	-	-	-	107	-	-	107	
KGCSA-Purkins Corner	106	146	(40)	40	-	-	-	-	-	-	
Leesburg	4,934	3,199	1,735	-	-	(1,234)	501	-	-	501	
Loudoun Water- Broad Run	1,809	1,316	493	-	-	-	493	493	-	-	
Luray	789	333	456	-	-	-	456	456	-	-	
Massanutten PSC	727	4,646	(3,919)	-	-	-	(3,919)	-	(3,919)	-	
Merck	592	2,368	(1,776)	-	-	-	(1,776)	-	(1,776)	-	
MillerCoors LLC	2,220	2,220	-	-	-	-	-	-	-	-	
Mt. Jackson	339	168	171	-	-	-	171	-	-	171	
Purcellville	727	436	291	-	-	-	291	145	-	146	
PWCSA-HL Mooney	13,157	10,416	2,741	-	-	-	2,741	2,467	-	274	
Stafford Co-Aquia	4,386	3,728	658	-	-	-	658	592	-	66	
Stoney Creek	325	706	(381)	-	-	-	(381)	-	(416)	35	
Strasburg	474	441	33	-	-	-	33	-	-	33	
UOSA	4,934	3,185	1,749	-	-	-	1,749	-	-	1,749	
Waynesboro	1,974	1,974	-	-	-	-	-	-	-	-	
Purchase by Eastern Shore	-	-	-	-	(229)	-	(229)	-	(229)	-	

*** For this Compliance Year, 0% of all Class A Credit Purchases are expected to be satisfied using Class B Credits.**

**** Expected Class B Credits are estimates only. Actual Class B Credits—and the resulting Class B sales price—will vary from estimates based on actual Delivered Loads in the Compliance Year.**

POTOMAC Basin: Phosphorus Credit Ledger

Compliance Year:	2018	Credit Forecasts		Preliminary Use of Credits			Credit Exchange (Pounds)				
Facility Name	Delivered WLA	Expected Load	Expected Credits	In-Bubble Exchange	Private Exchange	WQIF-Held Credits	Expected Net Credits		Class A Sales	Class A* Purchases	Class B** (expected)
								PRICE:	\$ 0.89	\$ 5.70	\$ 0.40
The Exchange (group)	164,509	123,647	40,862	-	(862)	(1,234)	38,766		36,209	(6,343)	8,900
ACSA-Fishersville	1,974	840	1,134	(1,134)	-	-	-	-	-	-	-
ACSA-Greenville	1,028	618	410	(83)	-	-	327	327	-	-	
ACSA-Harriston	411	242	169	-	-	-	169	169	-	-	
ACSA-Middle River	3,355	2,709	646	-	-	-	646	594	-	52	
ACSA-Mt. Sidney	617	828	(211)	211	-	-	-	-	-	-	
ACSA-Stuarts Draft	1,974	987	987	-	-	-	987	593	-	394	
ACSA-Vesper View	411	310	101	-	-	-	101	101	-	-	
ACSA-Weyers Cave	242	1,248	(1,006)	1,006	-	-	-	-	-	-	
Alexandria S.A.	29,603	22,043	7,560	-	-	-	7,560	5,670	-	1,890	
Arlington Co.	21,928	9,868	12,060	-	(833)	-	11,227	11,227	-	-	
Berryville	339	194	145	-	-	-	145	130	-	15	
Broadway Regional	1,172	1,114	58	-	-	-	58	-	-	58	
Dale Service Corp #1	2,522	2,357	165	-	-	-	165	-	-	165	
Dale Service Corp #8	2,522	2,357	165	-	-	-	165	-	-	165	
Fairfax Co-Noman Cole	36,729	27,344	9,385	-	-	-	9,385	9,385	-	-	
FCWSA-Vint Hill	148	56	92	-	-	-	92	-	-	92	
Front Royal	1,974	2,240	(266)	-	-	-	(266)	-	(266)	-	
FWSA-Opequon	6,217	4,095	2,122	-	-	-	2,122	-	-	2,122	
FWSA-Parkins Mill	2,467	1,727	740	-	-	-	740	-	-	740	
HRRSA-North River	10,262	6,631	3,631	-	-	-	3,631	3,631	-	-	
KGCSA-Dahlgren S.D.	914	503	411	(40)	-	-	371	-	-	371	
KGCSA-Fairview Beach	179	72	107	-	-	-	107	-	-	107	
KGCSA-Purkins Corner	106	146	(40)	40	-	-	-	-	-	-	
Leesburg	4,934	3,307	1,627	-	-	(1,234)	393	-	-	393	
Loudoun Water- Broad Run	1,809	905	904	-	-	-	904	904	-	-	
Luray	789	333	456	-	-	-	456	456	-	-	
Massanutten PSC	727	4,646	(3,919)	-	-	-	(3,919)	-	(3,919)	-	
Merck	592	2,368	(1,776)	-	-	-	(1,776)	-	(1,776)	-	
MillerCoors LLC	2,220	2,220	-	-	-	-	-	-	-	-	
Mt. Jackson	339	174	165	-	-	-	165	-	-	165	
Purcellville	727	533	194	-	-	-	194	140	-	54	
PWCSA-HL Mooney	13,157	10,553	2,604	-	-	-	2,604	2,344	-	260	
Stafford Co-Aquia	4,386	3,876	510	-	-	-	510	459	-	51	
Stoney Creek	353	706	(353)	-	-	-	(353)	-	(353)	-	
Strasburg	474	446	28	-	-	-	28	-	-	28	
UOSA	4,934	3,156	1,778	-	-	-	1,778	-	-	1,778	
Waynesboro	1,974	1,895	79	-	-	-	79	79	-	-	
Purchase by Eastern Shore	-	-	-	-	(29)	-	(29)	-	(29)	-	

*** For this Compliance Year, 0% of all Class A Credit Purchases are expected to be satisfied using Class B Credits.**

*** Expected Class B Credits are estimates only. Actual Class B Credits—and the resulting Class B sales price—will vary from estimates based on actual Delivered Loads in the Compliance Year.*

Potomac-Shenandoah River Basin

Supplemental Information for Individual Facilities



Owner Bubble: Augusta County Service Authority

The facilities listed below have received an aggregated mass load limit pursuant to 9 VAC 25-820-70, Part 1.B.2., which is also referred to as an “owner bubble”. Accordingly, compliance is determined solely on an aggregate basis rather than by comparison of individual facility loads with respective individual WLAs.

The “Credit Transferred within Bubble” section of each table forecasts the use of Credits within the owner bubble during each Compliance Year, and must necessarily sum to zero. The specific Credit transfers shown in this table are provided for internal planning purposes only and, accordingly, are not binding and may change based on the actual performance of individual facilities within the bubble.

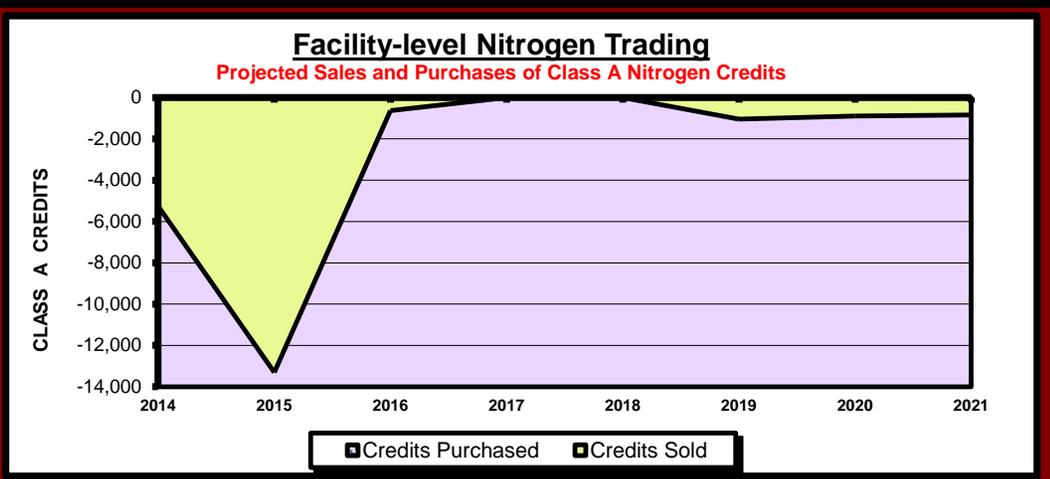
Expected Net Credits for an owner bubble may be either positive or negative. If Expected Net Credits is positive, the owner may pledge a percentage of such Credits to the Exchange. If Expected Net Credits is negative, Net Expected Credits identifies the number of Credits that must be purchased to comply with the aggregate Delivered WLA of the bubble.

NITROGEN Credits	Exchange 5-year Planning Period					Future Projections		
	2014	2015	2016	2017	2018	2019	2020	2021
Credits Transferred within Bubble								
Fishersville	(3)	(888)	(3,008)	(2,798)	(2,798)	(505)	(573)	(645)
Greenville	(4,140)	(4,034)	-	(865)	-	-	-	-
Harriston	(2,122)	(2,103)	(852)	-	(865)	-	-	-
Middle River	-	-	-	-	-	-	-	-
Mt. Sidney	1,322	1,576	419	441	441	505	573	645
Stuarts Draft	-	-	-	-	-	-	-	-
Vesper View	(1,419)	(1,365)	(535)	-	-	-	-	-
Weyers Cave	6,362	6,814	3,976	3,222	3,222	-	-	-
TOTAL (must sum to 0)	-	-	-	-	-	-	-	-
Credits Available outside Bubble								
Fishersville	16,509	15,377	630	-	-	2,189	2,012	1,826
Greenville	-	-	892	72	815	785	753	719
Harriston	-	-	-	866	19	877	870	862
Middle River	18,792	17,910	3,860	2,975	1,595	1,261	910	541
Mt. Sidney	-	-	-	-	-	-	-	-
Stuarts Draft	16,842	16,612	1,860	1,540	1,218	1,157	1,093	1,026
Vesper View	-	-	-	498	523	498	472	444
Weyers Cave	-	-	-	-	-	635	594	550
Expected Net Credits	52,143	49,899	7,242	5,951	4,170	7,402	6,704	5,968
Class A Sales (Purchases)	15,767	39,920	5,794	2,976	3,335	5,922	5,363	4,775
<i>Expected Class B Credits</i>	<i>36,376</i>	<i>9,979</i>	<i>1,448</i>	<i>2,975</i>	<i>835</i>	<i>1,480</i>	<i>1,341</i>	<i>1,193</i>
<i>WQIF-Held Credits</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>

PHOSPHORUS Credits	Exchange 5-year Planning Period					Future Projections		
	2014	2015	2016	2017	2018	2019	2020	2021
Credits Transferred within Bubble								
Fishersville	(52)	(250)	(300)	(1,134)	(1,134)	(252)	(296)	(341)
Greenville	(812)	(779)	(522)	(83)	(83)	-	-	-
Harriston	(309)	(295)	(197)	-	-	-	-	-
Middle River	-	-	-	-	-	-	-	-
Mt. Sidney	104	154	143	211	211	252	296	341
Stuarts Draft	-	-	-	-	-	-	-	-
Vesper View	(161)	(140)	(83)	-	-	-	-	-
Weyers Cave	1,230	1,310	959	1,006	1,006	-	-	-
TOTAL (must sum to 0)	-	-	-	-	-	-	-	-
Credits Available outside Bubble								
Fishersville	2,037	1,803	1,114	-	-	840	752	660
Greenville	-	-	-	451	327	379	347	313
Harriston	-	-	-	138	169	157	144	131
Middle River	2,136	2,003	1,307	1,205	646	511	368	219
Mt. Sidney	-	-	-	-	-	-	-	-
Stuarts Draft	2,307	2,282	1,582	1,248	987	938	886	832
Vesper View	-	-	-	86	101	86	69	52
Weyers Cave	-	-	-	-	-	105	98	91
Expected Net Credits	6,480	6,088	4,003	3,128	2,230	3,016	2,664	2,298
Class A Sales (Purchases)	0	4,870	3,203	1,564	1,784	2,413	2,131	1,839
<i>Expected Class B Credits</i>	<i>6,480</i>	<i>1,218</i>	<i>800</i>	<i>1,564</i>	<i>446</i>	<i>603</i>	<i>533</i>	<i>459</i>
<i>WQIF-Held Credits</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>

NITROGEN FACILITY SUMMARY

ACSA-Fishersville
POTOMAC Trading Basin



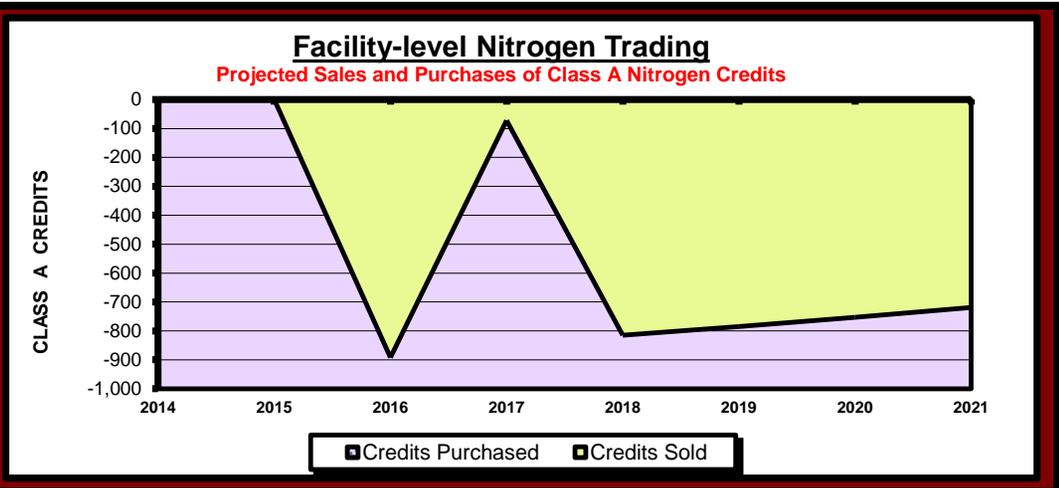
Loading & Credit Summary

Design Flow (mgd)	4.00
Projected Flow (mgd)	1.47
Projected Avg. Annual Concentration (mg/L)	2.50
Discharged Load (end of pipe)	11,203
Delivery Factor	0.44
Expected Load	4,929
Delivered WLA	21,441
Expected Credits (delivered)	16,512
Transfers In (Out) within Owner Bubble	(3)
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	16,509
Class A Credit Sales (Purchases)	5,256
Expected Class B Credits	11,253

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
1.47	1.54	1.62	1.70	1.70	1.79	1.88	1.97
2.50	2.50	2.50	4.00	4.00	4.00	4.00	4.00
11,203	11,763	12,351	20,750	20,750	21,787	22,876	24,020
0.44	0.44	0.10	0.10	0.10	0.10	0.10	0.10
4,929	5,176	1,235	2,075	2,075	2,179	2,288	2,402
21,441	21,441	4,873	4,873	4,873	4,873	4,873	4,873
16,512	16,265	3,638	2,798	2,798	2,694	2,585	2,471
(3)	(888)	(3,008)	(2,798)	(2,798)	(505)	(573)	(645)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
16,509	15,377	630	0	0	2,189	2,012	1,826
5,256	13,307	630	0	0	1,042	892	841
11,253	2,070	0	0	0	1,147	1,120	985

NITROGEN FACILITY SUMMARY

ACSA-Greenville
POTOMAC Trading Basin

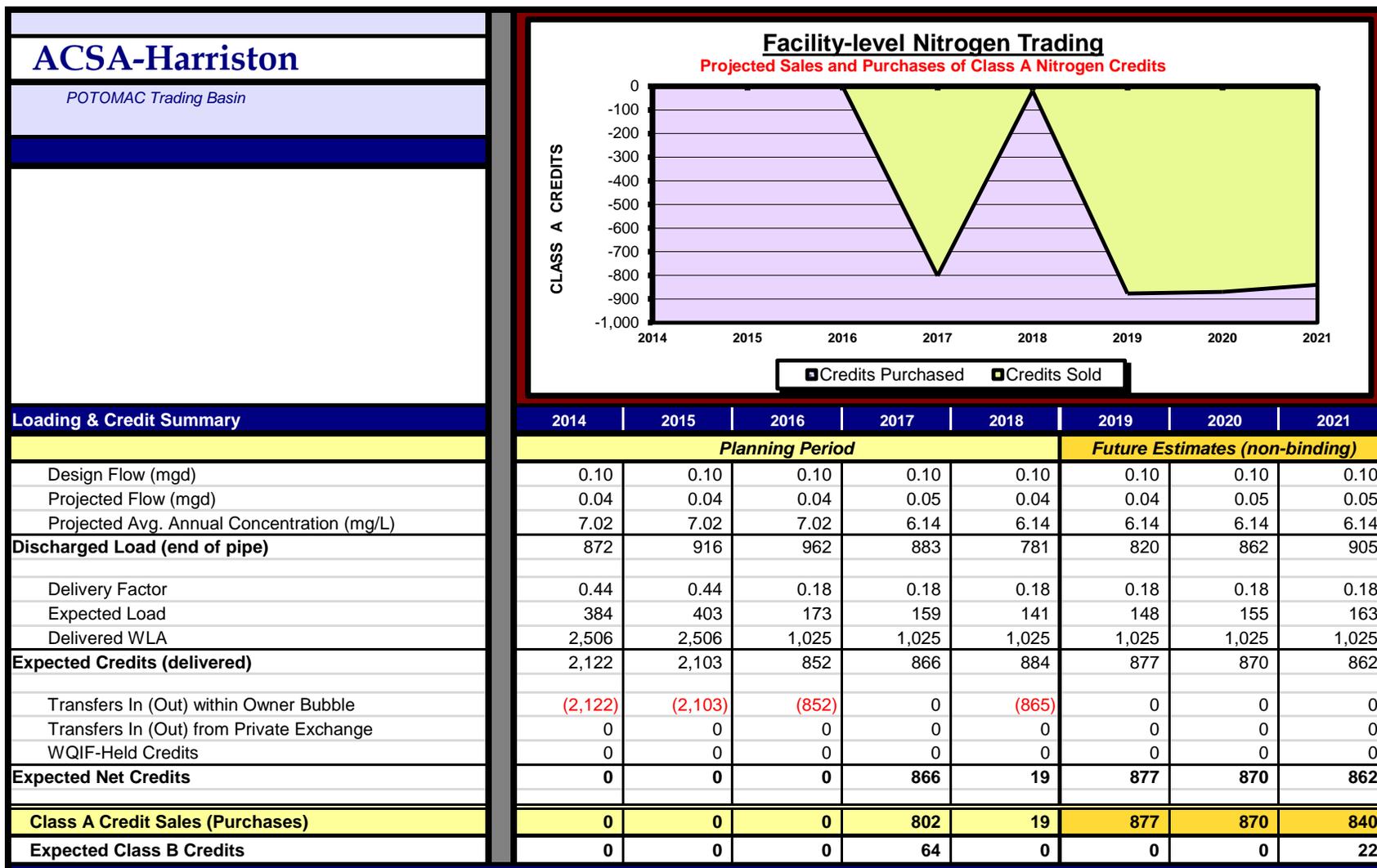


Loading & Credit Summary

Design Flow (mgd)	0.25
Projected Flow (mgd)	0.04
Projected Avg. Annual Concentration (mg/L)	42.30
Discharged Load (end of pipe)	4,829
Delivery Factor	0.44
Expected Load	2,125
Delivered WLA	6,265
Expected Credits (delivered)	4,140
Transfers In (Out) within Owner Bubble	(4,140)
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	0
Class A Credit Sales (Purchases)	0
Expected Class B Credits	0

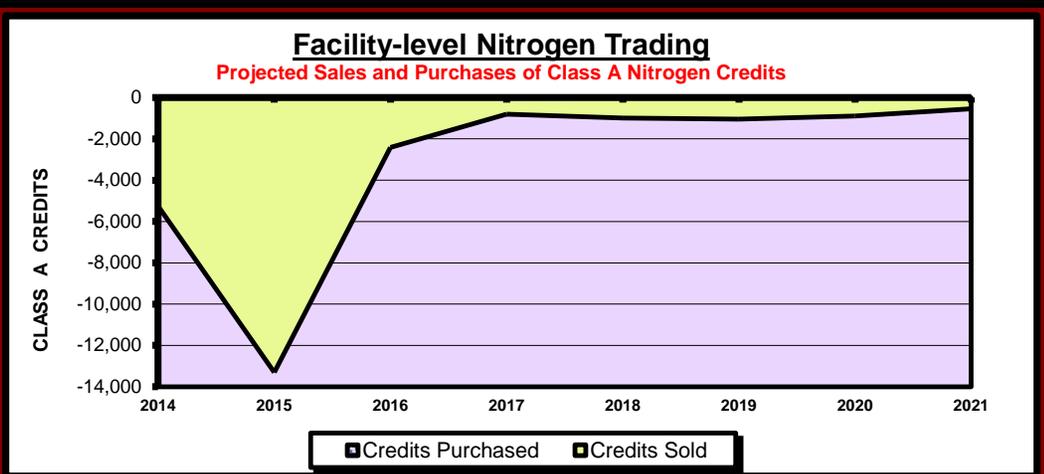
2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
0.04	0.04	0.04	0.04	0.05	0.06	0.06	0.06
42.30	42.30	42.30	36.83	36.83	36.83	36.83	36.83
4,829	5,071	5,324	4,867	6,090	6,395	6,714	7,050
0.44	0.44	0.10	0.10	0.10	0.10	0.10	0.10
2,125	2,231	532	487	609	639	671	705
6,265	6,265	1,424	1,424	1,424	1,424	1,424	1,424
4,140	4,034	892	937	815	785	753	719
(4,140)	(4,034)	0	(865)	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	892	72	815	785	753	719
0	0	0	0	0	0	0	0

NITROGEN FACILITY SUMMARY



NITROGEN FACILITY SUMMARY

ACSA-Middle River
POTOMAC Trading Basin



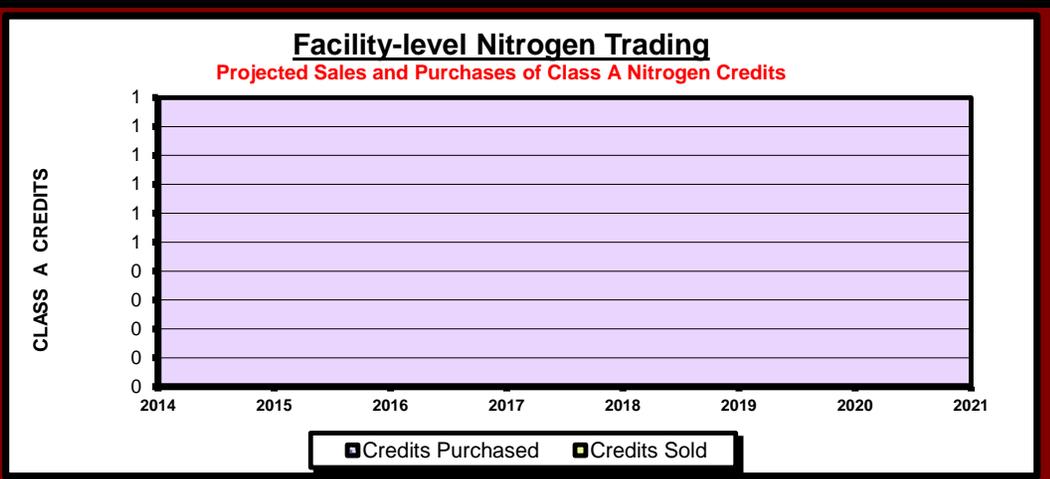
Loading & Credit Summary

Design Flow (mgd)	6.80
Projected Flow (mgd)	3.76
Projected Avg. Annual Concentration (mg/L)	3.50
Discharged Load (end of pipe)	40,129
Delivery Factor	0.44
Expected Load	17,657
Delivered WLA	36,449
Expected Credits (delivered)	18,792
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	18,792
Class A Credit Sales (Purchases)	5,256
Expected Class B Credits	13,536

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
6.80	6.80	6.80	6.80	6.80	6.80	6.80	6.80
3.76	3.95	4.15	4.36	5.49	5.77	6.05	6.36
3.50	3.50	3.50	4.00	4.00	4.00	4.00	4.00
40,129	42,135	44,242	53,090	66,887	70,232	73,743	77,430
0.44	0.44	0.10	0.10	0.10	0.10	0.10	0.10
17,657	18,539	4,424	5,309	6,689	7,023	7,374	7,743
36,449	36,449	8,284	8,284	8,284	8,284	8,284	8,284
18,792	17,910	3,860	2,975	1,595	1,261	910	541
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
18,792	17,910	3,860	2,975	1,595	1,261	910	541
5,256	13,307	2,412	802	989	1,042	891	541
13,536	4,603	1,448	2,173	606	219	19	0

NITROGEN FACILITY SUMMARY

ACSA-Mt. Sidney
POTOMAC Trading Basin



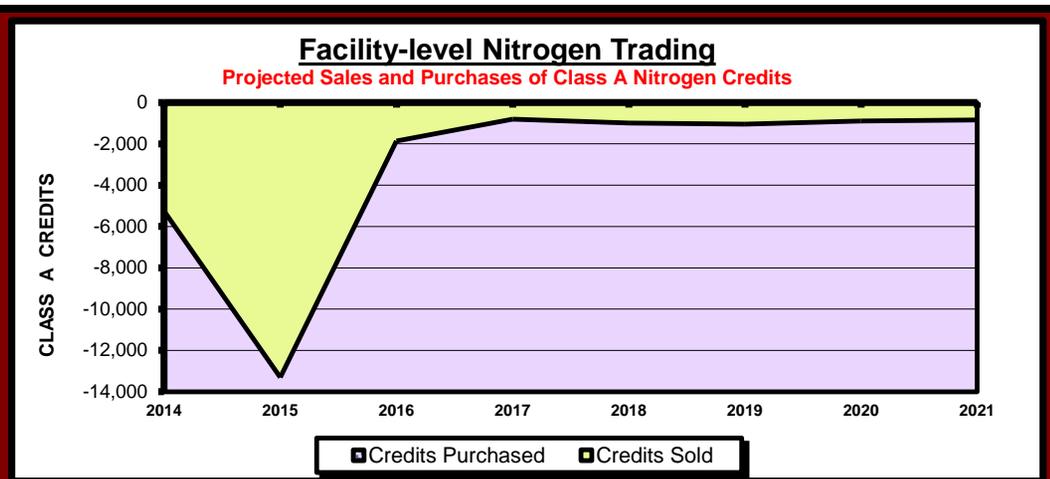
Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
0.10	0.11	0.11	0.12	0.12	0.13	0.13	0.14
36.80	36.80	36.80	35.64	35.64	35.64	35.64	35.64
11,547	12,124	12,731	12,946	12,946	13,593	14,273	14,986
0.44	0.44	0.10	0.10	0.10	0.10	0.10	0.10
5,081	5,335	1,273	1,295	1,295	1,359	1,427	1,499
3,759	3,759	854	854	854	854	854	854
(1,322)	(1,576)	(419)	(441)	(441)	(505)	(573)	(645)
1,322	1,576	419	441	441	505	573	645
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

NITROGEN FACILITY SUMMARY

ACSA-Stuarts Draft
POTOMAC Trading Basin



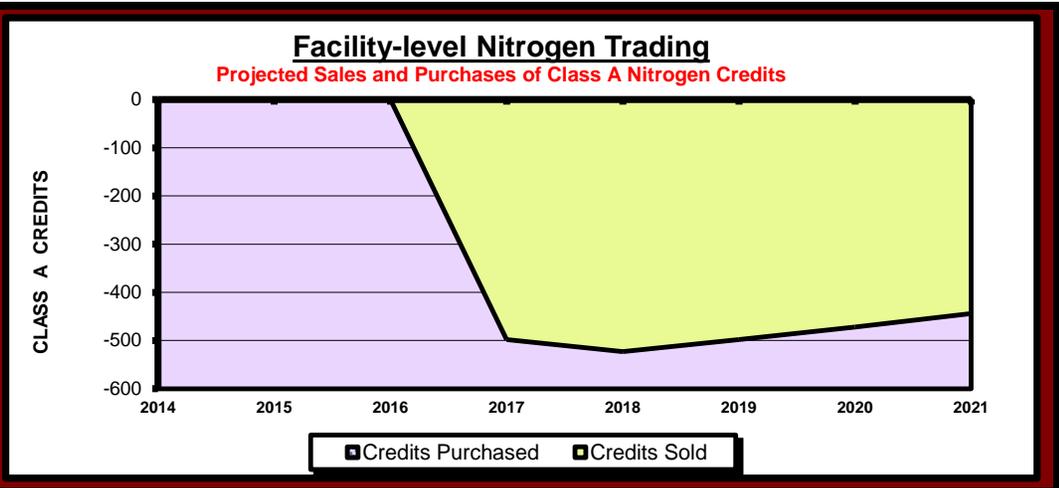
Loading & Credit Summary

Design Flow (mgd)	4.00
Projected Flow (mgd)	1.27
Projected Avg. Annual Concentration (mg/L)	2.70
Discharged Load (end of pipe)	10,453
Delivery Factor	0.44
Expected Load	4,599
Delivered WLA	21,441
Expected Credits (delivered)	16,842
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	16,842
Class A Credit Sales (Purchases)	5,255
Expected Class B Credits	11,587

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
1.27	1.33	1.40	1.47	2.00	2.10	2.21	2.32
2.70	2.70	2.70	4.00	4.00	4.00	4.00	4.00
10,453	10,976	11,524	17,927	24,364	25,583	26,862	28,205
0.44	0.44	0.05	0.05	0.05	0.05	0.05	0.05
4,599	4,829	576	896	1,218	1,279	1,343	1,410
21,441	21,441	2,436	2,436	2,436	2,436	2,436	2,436
16,842	16,612	1,860	1,540	1,218	1,157	1,093	1,026
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
16,842	16,612	1,860	1,540	1,218	1,157	1,093	1,026
5,255	13,306	1,860	802	989	1,043	891	840
11,587	3,306	0	738	229	114	202	186

NITROGEN FACILITY SUMMARY

ACSA-Vesper View
POTOMAC Trading Basin



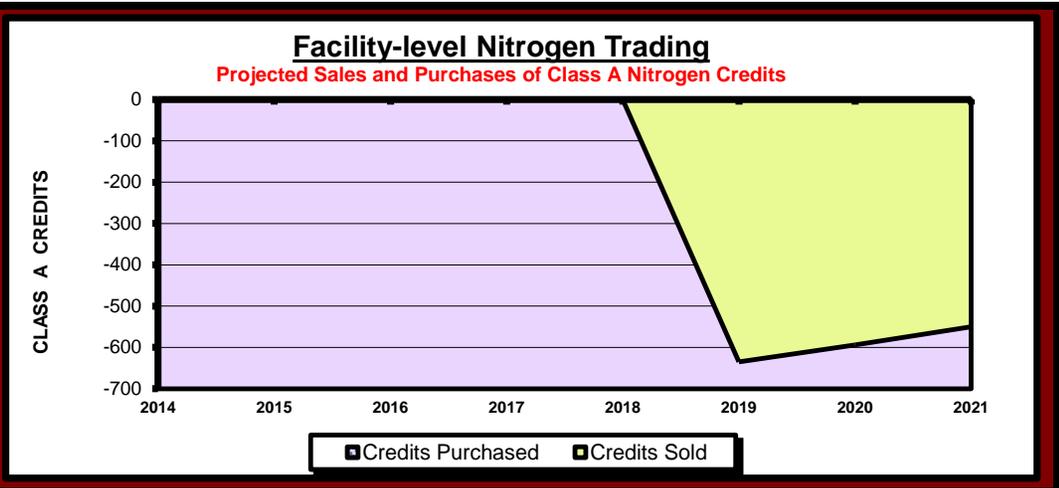
Loading & Credit Summary

Design Flow (mgd)	0.10
Projected Flow (mgd)	0.05
Projected Avg. Annual Concentration (mg/L)	17.51
Discharged Load (end of pipe)	2,469
Delivery Factor	0.44
Expected Load	1,087
Delivered WLA	2,506
Expected Credits (delivered)	1,419
Transfers In (Out) within Owner Bubble	(1,419)
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	0
Class A Credit Sales (Purchases)	0
Expected Class B Credits	0

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.06
17.51	17.51	17.51	17.92	17.92	17.92	17.92	17.92
2,469	2,593	2,722	2,926	2,786	2,926	3,072	3,225
0.44	0.44	0.18	0.18	0.18	0.18	0.18	0.18
1,087	1,141	490	527	502	527	553	581
2,506	2,506	1,025	1,025	1,025	1,025	1,025	1,025
1,419	1,365	535	498	523	498	472	444
(1,419)	(1,365)	(535)	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	498	523	498	472	444
0	0	0	0	0	0	0	0

NITROGEN FACILITY SUMMARY

ACSA-Weyers Cave
POTOMAC Trading Basin



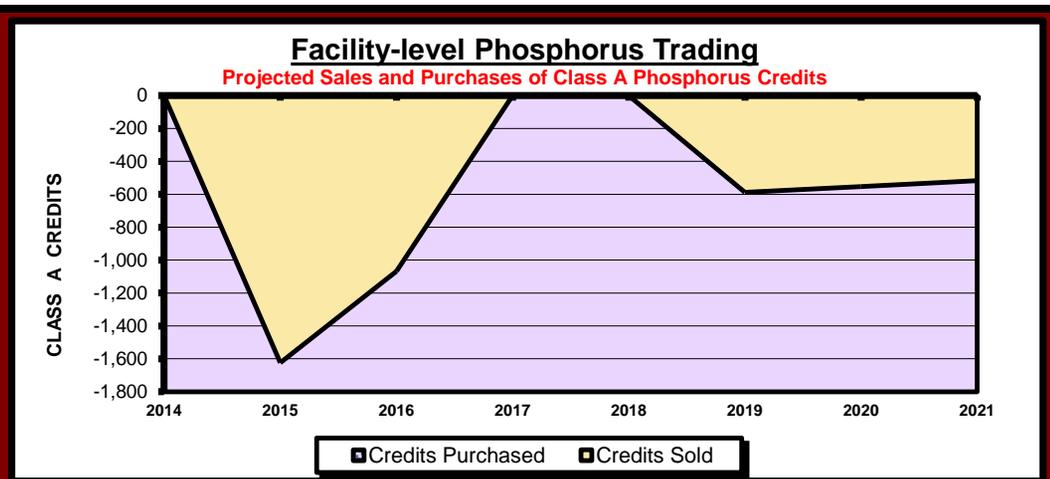
Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
0.23	0.24	0.26	0.27	0.27	0.28	0.30	0.31
29.00	29.00	29.00	23.79	23.79	4.00	4.00	4.00
20,551	21,578	22,657	19,516	19,516	3,445	3,618	3,799
0.44	0.44	0.24	0.24	0.24	0.24	0.24	0.24
9,042	9,494	5,438	4,684	4,684	827	868	912
2,680	2,680	1,462	1,462	1,462	1,462	1,462	1,462
(6,362)	(6,814)	(3,976)	(3,222)	(3,222)	635	594	550
6,362	6,814	3,976	3,222	3,222	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	635	594	550
0	0	0	0	0	0	0	0

PHOSPHORUS FACILITY SUMMARY

ACSA-Fishersville
POTOMAC Trading Basin



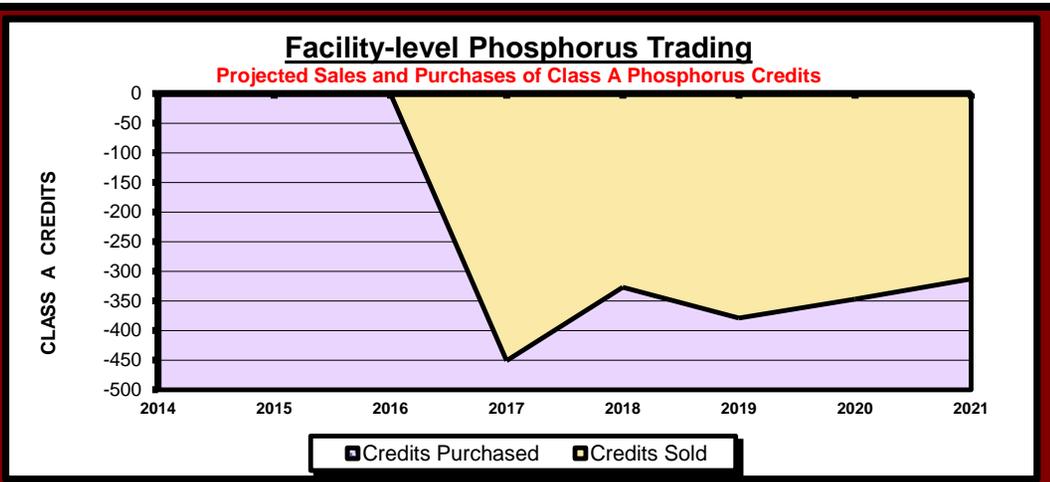
Loading & Credit Summary

Design Flow (mgd)	4.00
Projected Flow (mgd)	1.47
Projected Avg. Annual Concentration (mg/L)	0.21
Discharged Load (end of pipe)	941
Delivery Factor	0.77
Expected Load	725
Delivered WLA	2,814
Expected Credits (delivered)	2,089
Transfers In (Out) within Owner Bubble	(52)
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	2,037
Class A Credit Sales (Purchases)	0
Expected Class B Credits	2,037

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
1.47	1.54	1.62	1.70	1.70	1.79	1.88	1.97
0.21	0.21	0.21	0.30	0.30	0.30	0.30	0.30
941	988	1,037	1,556	1,556	1,634	1,716	1,802
0.77	0.77	0.54	0.54	0.54	0.54	0.54	0.54
725	761	560	840	840	882	926	973
2,814	2,814	1,974	1,974	1,974	1,974	1,974	1,974
2,089	2,053	1,414	1,134	1,134	1,092	1,048	1,001
(52)	(250)	(300)	(1,134)	(1,134)	(252)	(296)	(341)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
2,037	1,803	1,114	0	0	840	752	660
0	1,624	1,068	0	0	588	553	517
2,037	179	46	0	0	252	199	143

PHOSPHORUS FACILITY SUMMARY

ACSA-Greenville
POTOMAC Trading Basin



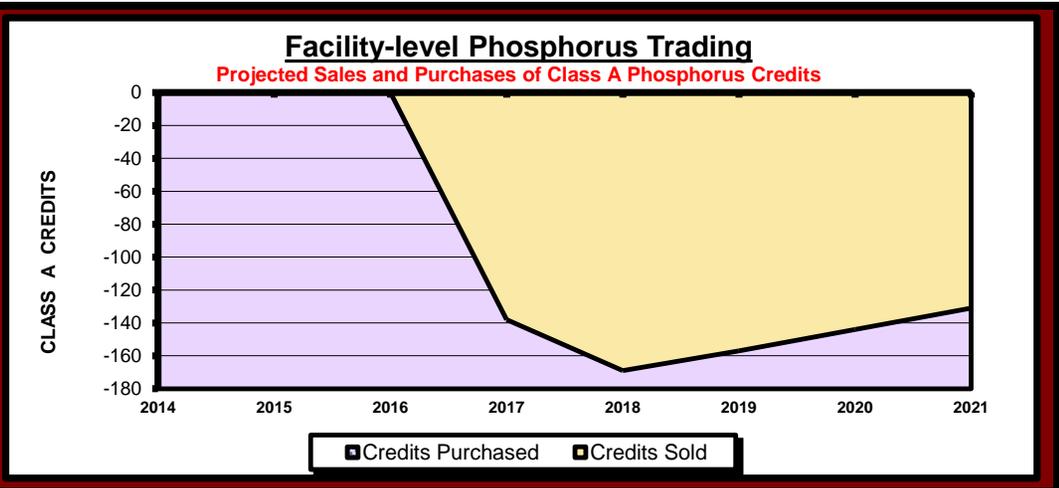
Loading & Credit Summary

Design Flow (mgd)	0.25
Projected Flow (mgd)	0.04
Projected Avg. Annual Concentration (mg/L)	7.44
Discharged Load (end of pipe)	849
Delivery Factor	0.77
Expected Load	654
Delivered WLA	1,466
Expected Credits (delivered)	812
Transfers In (Out) within Owner Bubble	(812)
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	0
Class A Credit Sales (Purchases)	0
Expected Class B Credits	0

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
0.04	0.04	0.04	0.04	0.05	0.06	0.06	0.06
7.44	7.44	7.44	6.92	6.92	6.92	6.92	6.92
849	892	936	915	1,144	1,202	1,262	1,325
0.77	0.77	0.54	0.54	0.54	0.54	0.54	0.54
654	687	506	494	618	649	681	715
1,466	1,466	1,028	1,028	1,028	1,028	1,028	1,028
812	779	522	534	410	379	347	313
(812)	(779)	(522)	(83)	(83)	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	451	327	379	347	313
0	0	0	0	0	0	0	0

PHOSPHORUS FACILITY SUMMARY

ACSA-Harriston
POTOMAC Trading Basin



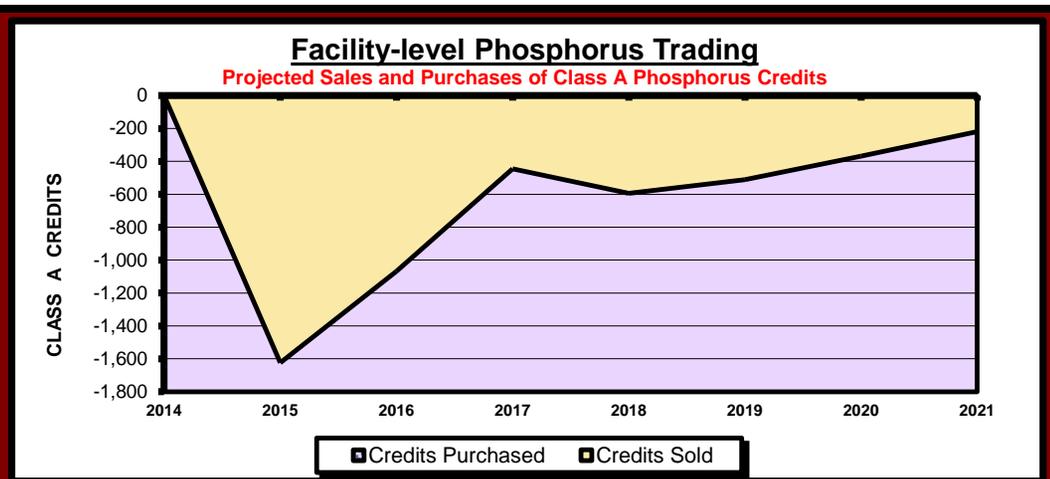
Loading & Credit Summary

Design Flow (mgd)	0.10
Projected Flow (mgd)	0.04
Projected Avg. Annual Concentration (mg/L)	2.90
Discharged Load (end of pipe)	360
Delivery Factor	0.77
Expected Load	277
Delivered WLA	586
Expected Credits (delivered)	309
Transfers In (Out) within Owner Bubble	(309)
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	0
Class A Credit Sales (Purchases)	0
Expected Class B Credits	0

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
0.04	0.04	0.04	0.05	0.04	0.04	0.05	0.05
2.90	2.90	2.90	3.52	3.52	3.52	3.52	3.52
360	378	397	506	448	470	494	519
0.77	0.77	0.54	0.54	0.54	0.54	0.54	0.54
277	291	214	273	242	254	267	280
586	586	411	411	411	411	411	411
309	295	197	138	169	157	144	131
(309)	(295)	(197)	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	138	169	157	144	131
0	0	0	0	0	0	0	0

PHOSPHORUS FACILITY SUMMARY

ACSA-Middle River
<i>POTOMAC Trading Basin</i>

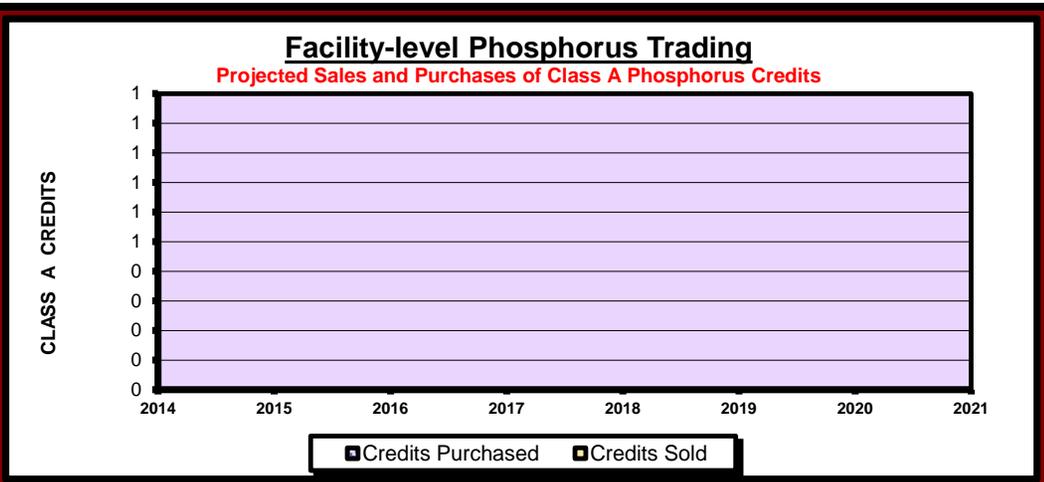


Loading & Credit Summary	
Design Flow (mgd)	6.80
Projected Flow (mgd)	3.76
Projected Avg. Annual Concentration (mg/L)	0.30
Discharged Load (end of pipe)	3,440
Delivery Factor	0.77
Expected Load	2,648
Delivered WLA	4,784
Expected Credits (delivered)	2,136
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	2,136
Class A Credit Sales (Purchases)	0
Expected Class B Credits	2,136

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
6.80	6.80	6.80	6.80	6.80	6.80	6.80	6.80
3.76	3.95	4.15	4.36	5.49	5.77	6.05	6.36
0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
3,440	3,612	3,792	3,982	5,017	5,267	5,531	5,807
0.77	0.77	0.54	0.54	0.54	0.54	0.54	0.54
2,648	2,781	2,048	2,150	2,709	2,844	2,987	3,136
4,784	4,784	3,355	3,355	3,355	3,355	3,355	3,355
2,136	2,003	1,307	1,205	646	511	368	219
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
2,136	2,003	1,307	1,205	646	511	368	219
0	1,624	1,068	445	594	511	368	219
2,136	379	239	760	52	0	0	0

PHOSPHORUS FACILITY SUMMARY

ACSA-Mt. Sidney
POTOMAC Trading Basin



Loading & Credit Summary

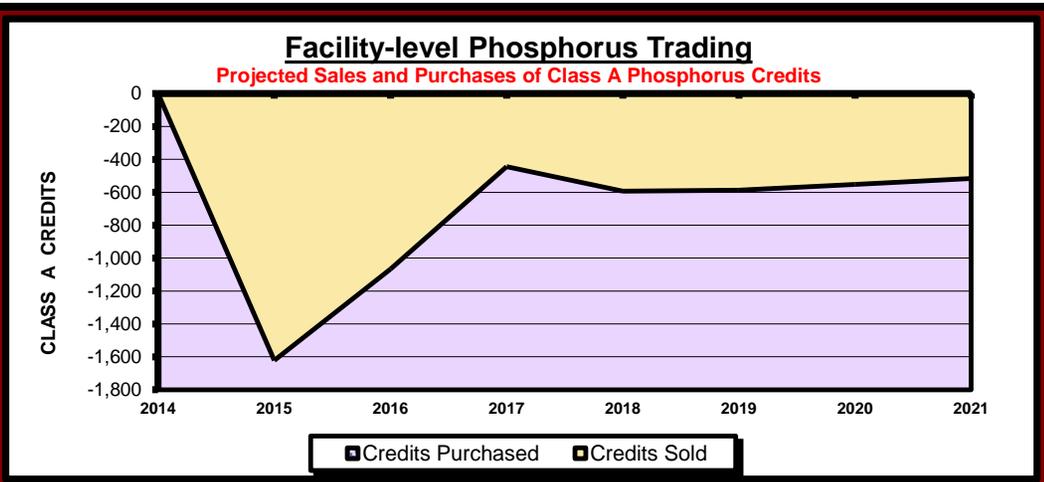
Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
0.10	0.11	0.11	0.12	0.12	0.13	0.13	0.14
4.07	4.07	4.07	4.22	4.22	4.22	4.22	4.22
1,277	1,341	1,408	1,533	1,533	1,610	1,690	1,774
0.77	0.77	0.54	0.54	0.54	0.54	0.54	0.54
983	1,033	760	828	828	869	913	958
879	879	617	617	617	617	617	617
(104)	(154)	(143)	(211)	(211)	(252)	(296)	(341)
104	154	143	211	211	252	296	341
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

PHOSPHORUS FACILITY SUMMARY

ACSA-Stuarts Draft

POTOMAC Trading Basin



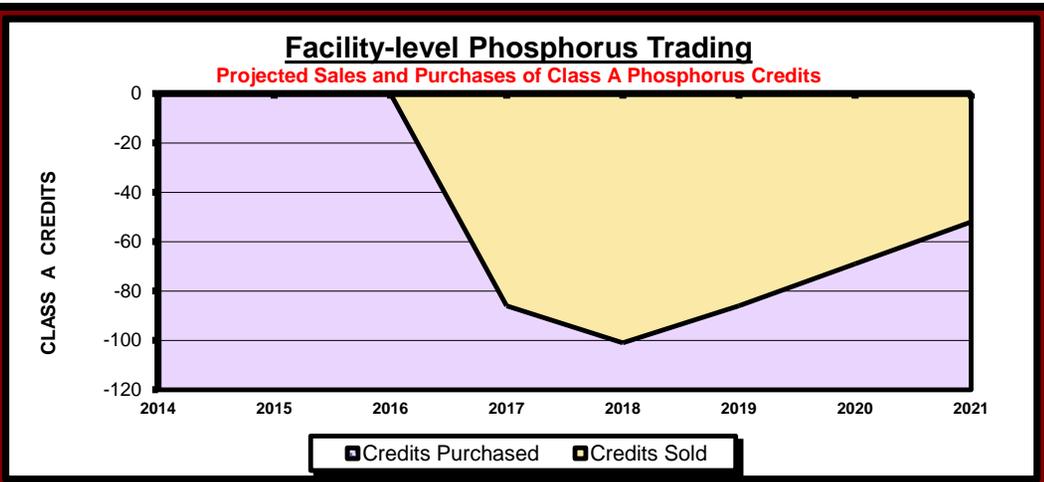
Loading & Credit Summary

Design Flow (mgd)	4.00
Projected Flow (mgd)	1.27
Projected Avg. Annual Concentration (mg/L)	0.17
Discharged Load (end of pipe)	658
Delivery Factor	0.77
Expected Load	507
Delivered WLA	2,814
Expected Credits (delivered)	2,307
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	2,307
Class A Credit Sales (Purchases)	0
Expected Class B Credits	2,307

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
1.27	1.33	1.40	1.47	2.00	2.10	2.21	2.32
0.17	0.17	0.17	0.30	0.30	0.30	0.30	0.30
658	691	726	1,345	1,827	1,919	2,015	2,115
0.77	0.77	0.54	0.54	0.54	0.54	0.54	0.54
507	532	392	726	987	1,036	1,088	1,142
2,814	2,814	1,974	1,974	1,974	1,974	1,974	1,974
2,307	2,282	1,582	1,248	987	938	886	832
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
2,307	2,282	1,582	1,248	987	938	886	832
0	1,622	1,067	444	593	587	552	516
2,307	660	515	804	394	351	334	316

PHOSPHORUS FACILITY SUMMARY

ACSA-Vesper View
POTOMAC Trading Basin

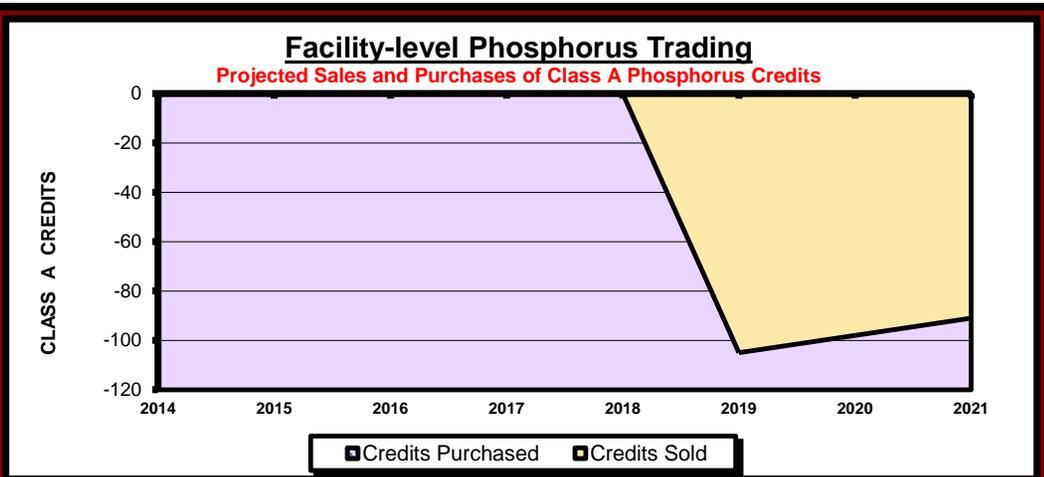


Loading & Credit Summary	
Design Flow (mgd)	
Projected Flow (mgd)	
Projected Avg. Annual Concentration (mg/L)	
Discharged Load (end of pipe)	
Delivery Factor	
Expected Load	
Delivered WLA	
Expected Credits (delivered)	
Transfers In (Out) within Owner Bubble	
Transfers In (Out) from Private Exchange	
WQIF-Held Credits	
Expected Net Credits	
Class A Credit Sales (Purchases)	
Expected Class B Credits	

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.06
3.91	3.91	3.91	3.69	3.69	3.69	3.69	3.69
551	579	608	602	574	602	633	664
0.77	0.77	0.54	0.54	0.54	0.54	0.54	0.54
425	446	328	325	310	325	342	359
586	586	411	411	411	411	411	411
161	140	83	86	101	86	69	52
(161)	(140)	(83)	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	86	101	86	69	52
0	0	0	0	0	0	0	0

PHOSPHORUS FACILITY SUMMARY

ACSA-Weyers Cave
POTOMAC Trading Basin



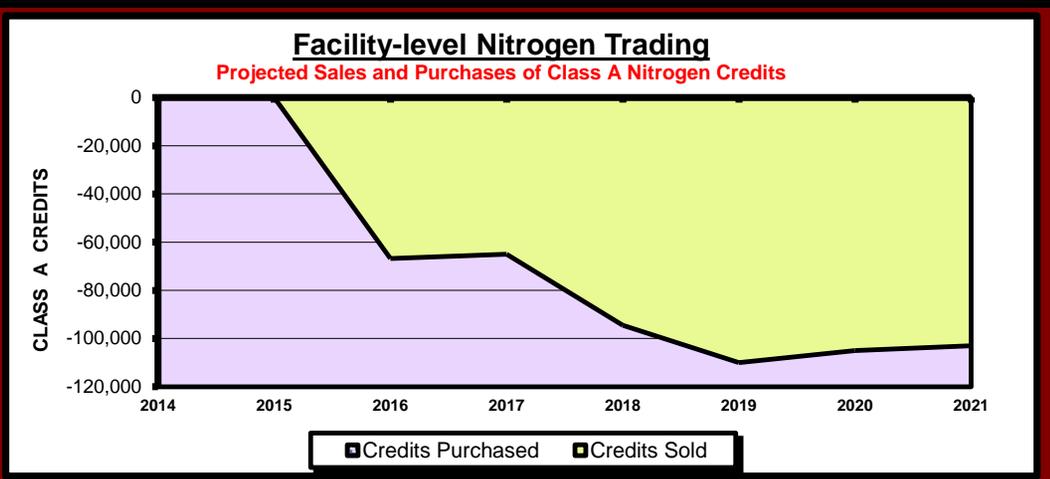
Loading & Credit Summary

Design Flow (mgd)	0.50
Projected Flow (mgd)	0.23
Projected Avg. Annual Concentration (mg/L)	2.90
Discharged Load (end of pipe)	2,055
Delivery Factor	0.77
Expected Load	1,582
Delivered WLA	352
Expected Credits (delivered)	(1,230)
Transfers In (Out) within Owner Bubble	1,230
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	0
Class A Credit Sales (Purchases)	0
Expected Class B Credits	0

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
0.23	0.24	0.26	0.27	0.27	0.28	0.30	0.31
2.90	2.90	2.90	2.87	2.87	0.30	0.30	0.30
2,055	2,158	2,266	2,354	2,354	258	271	285
0.77	0.77	0.53	0.53	0.53	0.53	0.53	0.53
1,582	1,662	1,201	1,248	1,248	137	144	151
352	352	242	242	242	242	242	242
(1,230)	(1,310)	(959)	(1,006)	(1,006)	105	98	91
1,230	1,310	959	1,006	1,006	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	105	98	91
0	0	0	0	0	0	0	0

NITROGEN FACILITY SUMMARY

Alexandria S.A.
POTOMAC Trading Basin



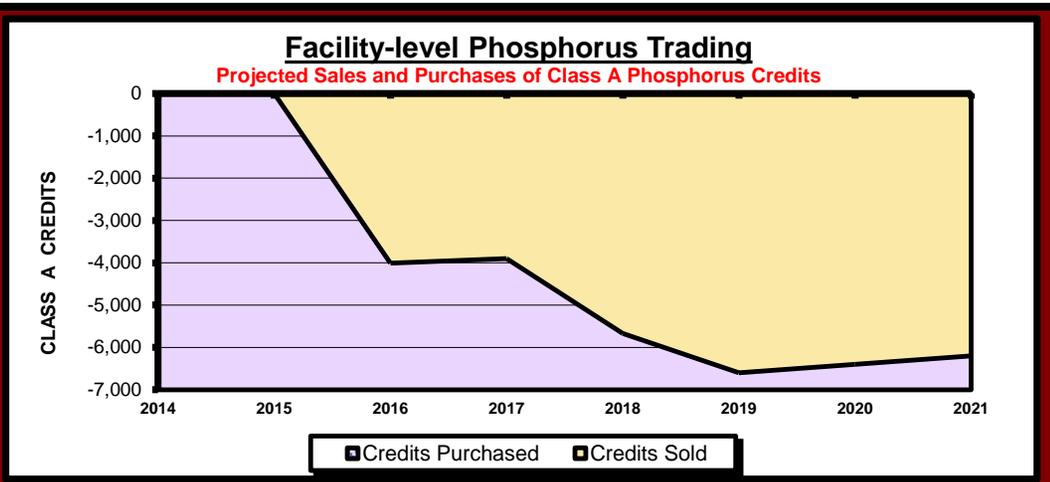
Loading & Credit Summary

Design Flow (mgd)	54.00
Projected Flow (mgd)	38.30
Projected Avg. Annual Concentration (mg/L)	4.23
Discharged Load (end of pipe)	493,373
Delivery Factor	1.00
Expected Load	493,373
Delivered WLA	493,381
Expected Credits (delivered)	8
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	8
Class A Credit Sales (Purchases)	0
Expected Class B Credits	8

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
54.00	54.00	54.00	54.00	54.00	54.00	54.00	54.00
38.30	38.96	39.38	39.80	40.21	40.63	41.05	41.47
4.23	4.16	3.00	3.00	3.00	3.00	3.00	3.00
493,373	493,381	359,802	363,640	367,386	371,223	375,061	378,898
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
493,373	493,381	359,802	363,640	367,386	371,223	375,061	378,898
493,381	493,381	493,381	493,381	493,381	493,381	493,381	493,381
8	0	133,579	129,741	125,995	122,158	118,320	114,483
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
8	0	133,579	129,741	125,995	122,158	118,320	114,483
0	0	66,790	65,000	94,496	110,000	105,000	103,000
8	0	66,789	64,741	31,499	12,158	13,320	11,483

PHOSPHORUS FACILITY SUMMARY

Alexandria S.A.
POTOMAC Trading Basin



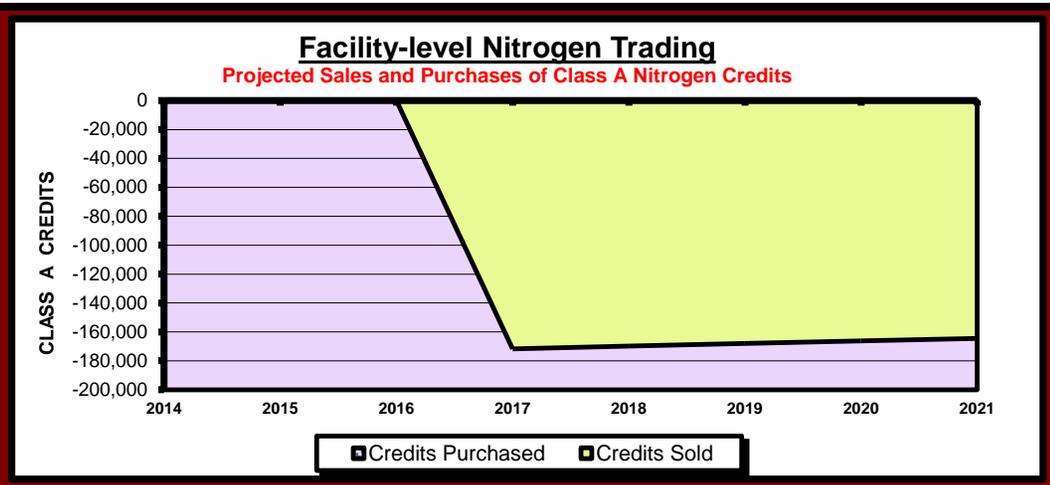
Loading & Credit Summary

Design Flow (mgd)	
Projected Flow (mgd)	
Projected Avg. Annual Concentration (mg/L)	
Discharged Load (end of pipe)	
Delivery Factor	
Expected Load	
Delivered WLA	
Expected Credits (delivered)	
Transfers In (Out) within Owner Bubble	
Transfers In (Out) from Private Exchange	
WQIF-Held Credits	
Expected Net Credits	
Class A Credit Sales (Purchases)	
Expected Class B Credits	

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
54.00	54.00	54.00	54.00	54.00	54.00	54.00	54.00
38.30	38.96	39.38	39.80	40.21	40.63	41.05	41.47
0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
20,996	21,358	21,588	21,818	22,043	22,273	22,504	22,734
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
20,996	21,358	21,588	21,818	22,043	22,273	22,504	22,734
29,603	29,603	29,603	29,603	29,603	29,603	29,603	29,603
8,607	8,245	8,015	7,785	7,560	7,330	7,099	6,869
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
8,607	8,245	8,015	7,785	7,560	7,330	7,099	6,869
0	0	4,008	3,900	5,670	6,600	6,400	6,200
8,607	8,245	4,007	3,885	1,890	730	699	669

NITROGEN FACILITY SUMMARY

Arlington Co.
 POTOMAC Trading Basin



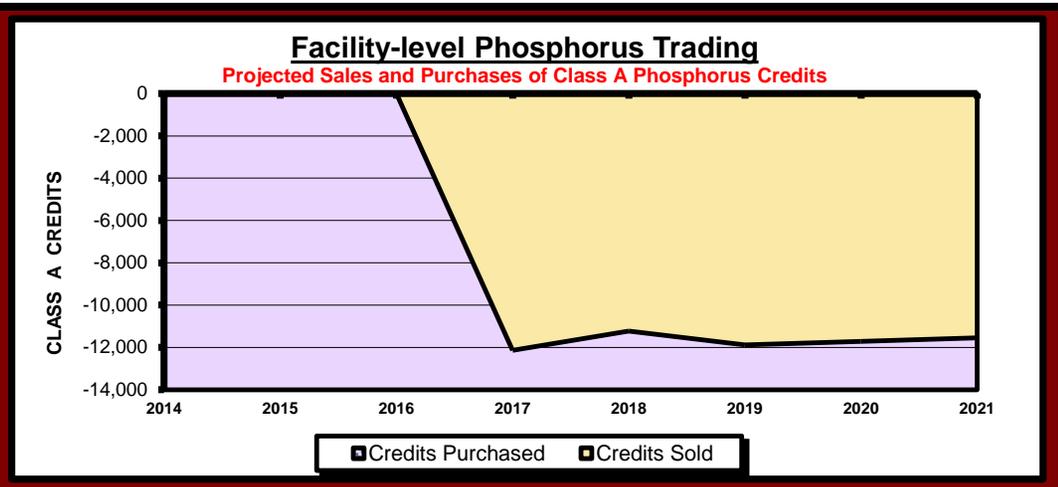
Loading & Credit Summary	
Design Flow (mgd)	40.00
Projected Flow (mgd)	25.00
Projected Avg. Annual Concentration (mg/L)	2.49
Discharged Load (end of pipe)	
Delivery Factor	1.00
Expected Load	189,586
Delivered WLA	365,467
Expected Credits (delivered)	
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange*	(175,881)
WQIF-Held Credits	0
Expected Net Credits	0
Class A Credit Sales (Purchases)	0
Expected Class B Credits	0

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00
25.00	25.50	26.00	26.50	27.00	27.50	28.00	28.50
2.49	2.45	2.42	2.39	2.30	2.28	2.26	2.24
189,586	190,271	191,627	192,891	189,129	190,957	192,723	194,429
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
189,586	190,271	191,627	192,891	189,129	190,957	192,723	194,429
365,467	365,467	365,467	365,467	365,467	365,467	365,467	365,467
175,881	175,196	173,840	172,576	176,338	174,510	172,744	171,038
0	0	0	0	0	0	0	0
(175,881)	(816)	(816)	(816)	(6,524)	(6,524)	(6,524)	(6,524)
0	0	0	0	0	0	0	0
0	174,380	173,024	171,760	169,814	167,986	166,220	164,514
0	0	0	171,760	169,814	167,986	166,220	164,514
0	174,380	173,024	0	0	0	0	0

* This adjustment implements the Class A (4 year) and Class B (2 year) Credit sales restriction applicable to this new Participant (as of 2013 Update) in accordance with Section 4.8(d) of the Credit Exchange Policy. Of the quantity shown in 2014, 175,065 lbs/yr represent the Class A Credit sales restriction and the difference is a Private Exchange specified by the Participant.

PHOSPHORUS FACILITY SUMMARY

Arlington Co.
<i>POTOMAC Trading Basin</i>



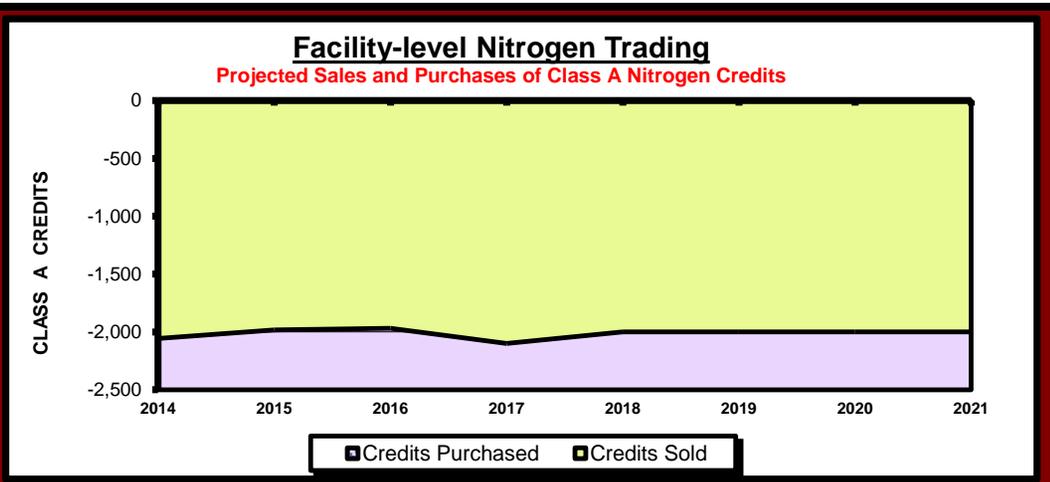
Loading & Credit Summary	
Design Flow (mgd)	40.00
Projected Flow (mgd)	25.00
Projected Avg. Annual Concentration (mg/L)	0.13
Discharged Load (end of pipe)	9,898
Delivery Factor	1.00
Expected Load	9,898
Delivered WLA	21,928
Expected Credits (delivered)	12,030
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange*	(12,030)
WQIF-Held Credits	0
Expected Net Credits	0
Class A Credit Sales (Purchases)	
Expected Class B Credits	0

2014	2015	2016	2017	2018	2019	2020	2021
<i>Planning Period</i>					<i>Future Estimates (non-binding)</i>		
40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00
25.00	25.50	26.00	26.50	27.00	27.50	28.00	28.50
0.13	0.12	0.12	0.12	0.12	0.11	0.11	0.11
9,898	9,319	9,502	9,685	9,868	9,213	9,380	9,548
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
9,898	9,319	9,502	9,685	9,868	9,213	9,380	9,548
21,928	21,928	21,928	21,928	21,928	21,928	21,928	21,928
12,030	12,609	12,426	12,243	12,060	12,715	12,548	12,380
0	0	0	0	0	0	0	0
(12,030)	(105)	(105)	(105)	(833)	(833)	(833)	(833)
0	0	0	0	0	0	0	0
0	12,504	12,321	12,138	11,227	11,882	11,715	11,547
0	0	0	12,138	11,227	11,882	11,715	11,547
0	12,504	12,321	0	0	0	0	0

* This adjustment implements the Class A (4 year) and Class B (2 year) Credit sales restriction applicable to this new Participant (as of 2013 Update) in accordance with Section 4.8(d) of the Credit Exchange Policy. Of the quantity shown in 2014, 11,925 lbs/yr represent the Class A Credit sales restriction and the difference is a Private Exchange specified by the Participant.

NITROGEN FACILITY SUMMARY

Berryville
 POTOMAC Trading Basin



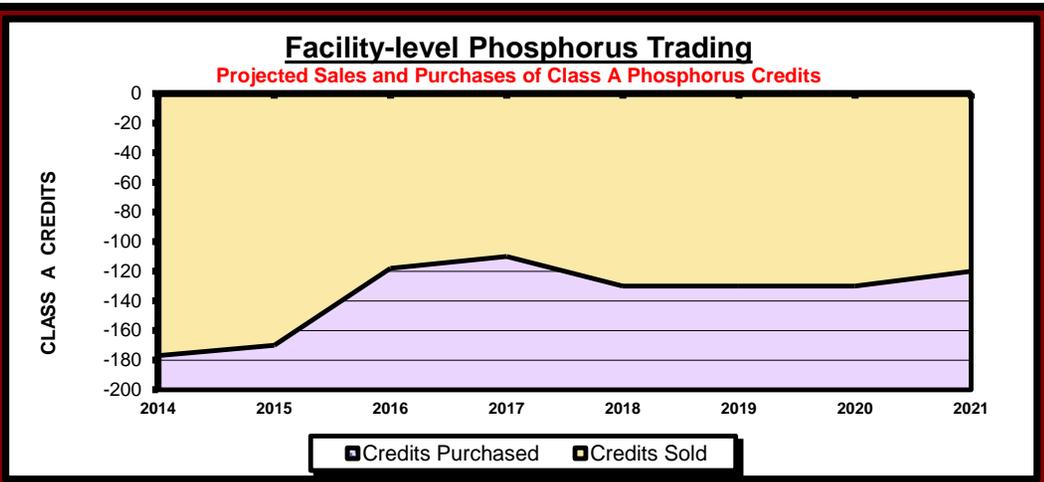
Loading & Credit Summary

Design Flow (mgd)	0.70
Projected Flow (mgd)	0.42
Projected Avg. Annual Concentration (mg/L)	4.00
Discharged Load (end of pipe)	5,117
Delivery Factor	0.67
Expected Load	3,428
Delivered WLA	5,713
Expected Credits (delivered)	2,285
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	2,285
Class A Credit Sales (Purchases)	2,057
Expected Class B Credits	228

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
0.42	0.43	0.43	0.40	0.40	0.40	0.41	0.42
4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
5,117	5,238	5,238	4,873	4,873	4,873	4,995	5,117
0.67	0.67	0.63	0.63	0.63	0.63	0.63	0.63
3,428	3,510	3,300	3,070	3,070	3,070	3,147	3,223
5,713	5,713	5,373	5,373	5,373	5,373	5,373	5,373
2,285	2,203	2,073	2,303	2,303	2,303	2,226	2,150
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
2,285	2,203	2,073	2,303	2,303	2,303	2,226	2,150
2,057	1,983	1,969	2,100	2,000	2,000	2,000	2,000
228	220	104	203	303	303	226	150

PHOSPHORUS FACILITY SUMMARY

Berryville
POTOMAC Trading Basin



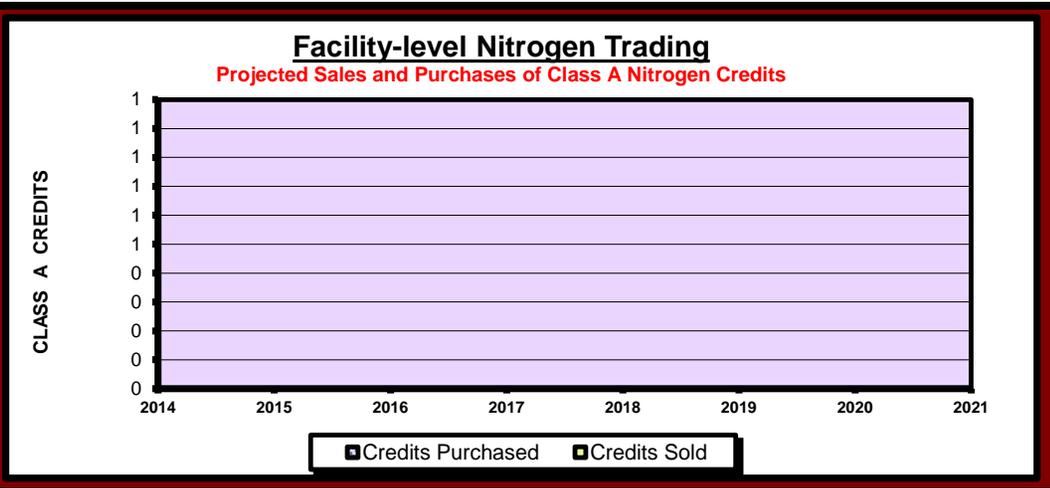
Loading & Credit Summary

Design Flow (mgd)	0.70
Projected Flow (mgd)	0.42
Projected Avg. Annual Concentration (mg/L)	0.30
Discharged Load (end of pipe)	384
Delivery Factor	0.77
Expected Load	295
Delivered WLA	492
Expected Credits (delivered)	197
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	197
Class A Credit Sales (Purchases)	177
Expected Class B Credits	20

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
0.42	0.43	0.43	0.40	0.40	0.40	0.41	0.42
0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
384	393	393	365	365	365	375	384
0.77	0.77	0.53	0.53	0.53	0.53	0.53	0.53
295	303	208	194	194	194	199	203
492	492	339	339	339	339	339	339
197	189	131	145	145	145	140	136
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
197	189	131	145	145	145	140	136
177	170	118	110	130	130	130	120
20	19	13	35	15	15	10	16

NITROGEN FACILITY SUMMARY

Broadway Regional
POTOMAC Trading Basin



Loading & Credit Summary

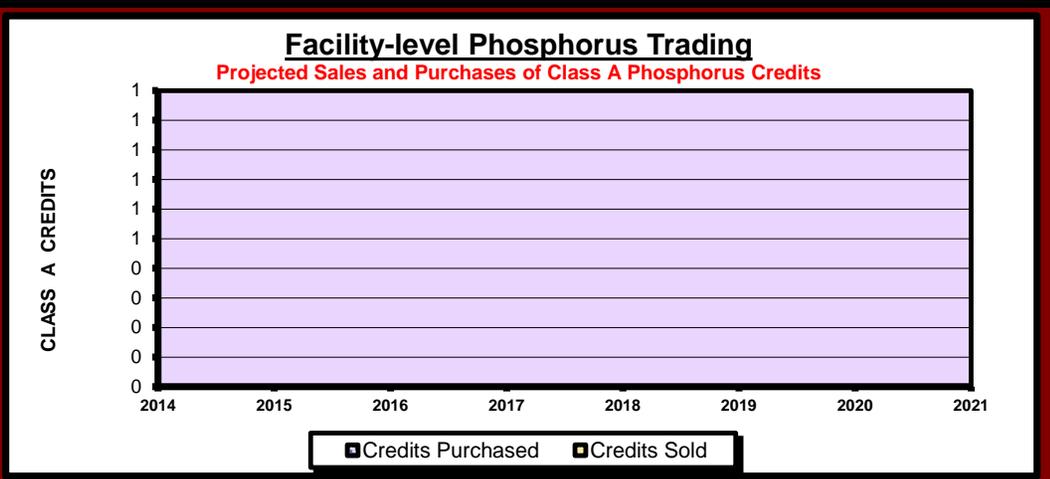
Design Flow (mgd)	2.92
Projected Flow (mgd)	2.19
Projected Avg. Annual Concentration (mg/L)	3.70
Discharged Load (end of pipe)	24,678
Delivery Factor	0.67
Expected Load	16,534
Delivered WLA*	19,752
Expected Credits (delivered)	3,218
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	3,218
Class A Credit Sales (Purchases)	0
Expected Class B Credits	3,218

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92
2.19	2.21	2.24	2.27	2.30	2.33	2.36	2.39
3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70
24,678	24,904	25,242	25,580	25,918	26,256	26,594	26,932
0.67	0.67	0.19	0.19	0.19	0.19	0.19	0.19
16,534	16,685	4,796	4,860	4,924	4,989	5,053	5,117
19,752	19,752	5,601	5,601	5,601	5,601	5,601	5,601
3,218	3,067	805	741	677	612	548	484
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
3,218	3,067	805	741	677	612	548	484
0	0	0	0	0	0	0	0
3,218	3,067	805	741	677	612	548	484

* Reflects allocation transfer from the Town of New Market of 6,091 discharged pounds of TN according to agreement dated August 5, 2008

PHOSPHORUS FACILITY SUMMARY

Broadway Regional
POTOMAC Trading Basin



Loading & Credit Summary	
Design Flow (mgd)	2.92
Projected Flow (mgd)	2.19
Projected Avg. Annual Concentration (mg/L)	0.30
Discharged Load (end of pipe)	2,001
Delivery Factor	0.77
Expected Load	1,541
Delivered WLA*	1,703
Expected Credits (delivered)	162
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	162
Class A Credit Sales (Purchases)	0
Expected Class B Credits	162

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92
2.19	2.21	2.24	2.27	2.30	2.33	2.36	2.39
0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
2,001	2,019	2,047	2,074	2,101	2,129	2,156	2,184
0.77	0.77	0.53	0.53	0.53	0.53	0.53	0.53
1,541	1,555	1,085	1,099	1,114	1,128	1,143	1,157
1,703	1,703	1,172	1,172	1,172	1,172	1,172	1,172
162	148	87	73	58	44	29	15
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
162	148	87	73	58	44	29	15
0	0	0	0	0	0	0	0
162	148	87	73	58	44	29	15

* Reflects allocation transfer from the Town of New Market of 457 discharged pounds of TP according to agreement dated August 5, 2008

Owner Bubble: Dale Service Corporation

The facilities listed below have received an aggregated mass load limit pursuant to 9 VAC 25-820-70, Part 1.B.2., which is also referred to as an “owner bubble”. Accordingly, compliance is determined solely on an aggregate basis rather than by comparison of individual facility loads with respective individual WLAs.

The “Credit Transferred within Bubble” section of each table forecasts the use of Credits within the owner bubble during each Compliance Year, and must necessarily sum to zero. The specific Credit transfers shown in this table are provided for internal planning purposes only and, accordingly, are not binding and may change based on the actual performance of individual facilities within the bubble.

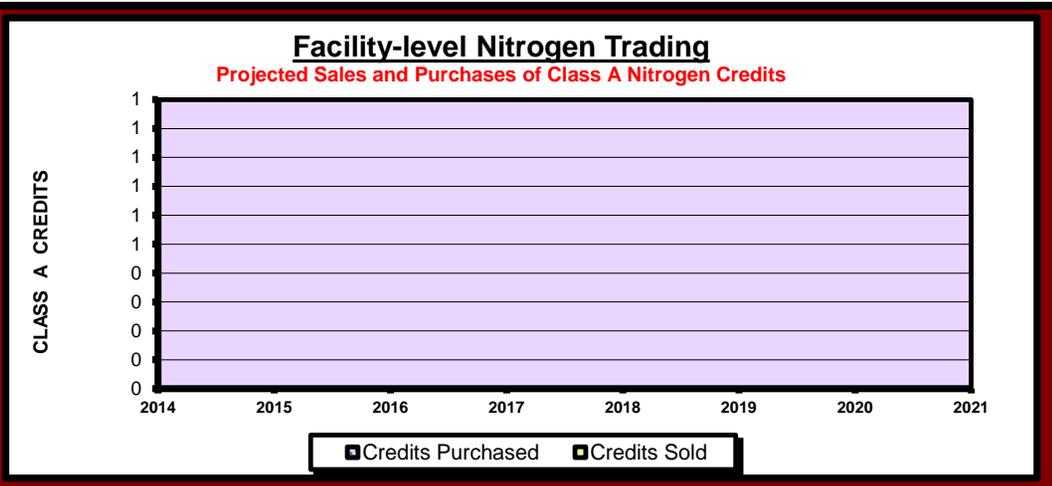
Expected Net Credits for an owner bubble may be either positive or negative. If Expected Net Credits is positive, the owner may pledge a percentage of such Credits to the Exchange. If Expected Net Credits is negative, Net Expected Credits identifies the number of Credits that must be purchased to comply with the aggregate Delivered WLA of the bubble.

NITROGEN Credits	Exchange 5-year Planning Period					Future Projections		
	2014	2015	2016	2017	2018	2019	2020	2021
Credits Transferred within Bubble								
Dale Service Corp #1	-	-	-	-	-	-	-	-
Dale Service Corp #8	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
TOTAL (must sum to 0)	-	-	-	-	-	-	-	-
Credits Available outside Bubble								
Dale Service Corp #1	4,569	3,655	2,741	2,741	2,741	2,741	2,741	2,741
Dale Service Corp #8	4,569	3,655	2,741	2,741	2,741	2,741	2,741	2,741
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Expected Net Credits	9,138	7,310	5,482	5,482	5,482	5,482	5,482	5,482
Class A Sales (Purchases)	0	0	0	0	0	0	0	0
<i>Expected Class B Credits</i>	<i>9,138</i>	<i>7,310</i>	<i>5,482</i>	<i>5,482</i>	<i>5,482</i>	<i>5,482</i>	<i>5,482</i>	<i>5,482</i>
<i>WQIF-Held Credits</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>

PHOSPHORUS Credits	Exchange 5-year Planning Period					Future Projections		
	2014	2015	2016	2017	2018	2019	2020	2021
Credits Transferred within Bubble								
Dale Service Corp #1	-	-	-	-	-	-	-	-
Dale Service Corp #8	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
TOTAL (must sum to 0)	-	-	-	-	-	-	-	-
Credits Available outside Bubble								
Dale Service Corp #1	274	220	165	165	165	165	165	165
Dale Service Corp #8	274	220	165	165	165	165	165	165
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Expected Net Credits	548	440	330	330	330	330	330	330
Class A Sales (Purchases)	0	0	0	0	0	0	0	0
<i>Expected Class B Credits</i>	<i>548</i>	<i>440</i>	<i>330</i>	<i>330</i>	<i>330</i>	<i>330</i>	<i>330</i>	<i>330</i>
<i>WQIF-Held Credits</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>

NITROGEN FACILITY SUMMARY

Dale Service Corp #1
POTOMAC Trading Basin



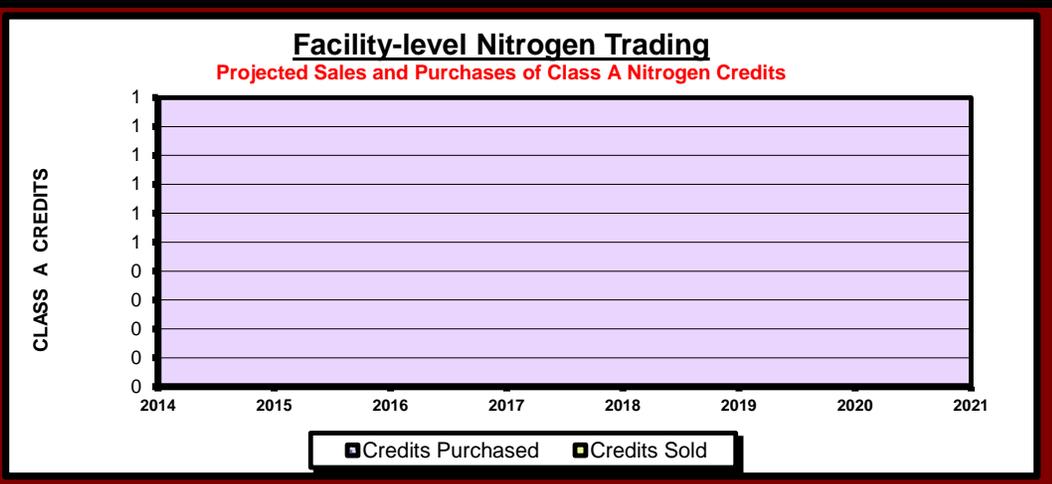
Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60
4.10	4.20	4.30	4.30	4.30	4.30	4.30	4.30
3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
37,460	38,374	39,288	39,288	39,288	39,288	39,288	39,288
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
37,460	38,374	39,288	39,288	39,288	39,288	39,288	39,288
42,029	42,029	42,029	42,029	42,029	42,029	42,029	42,029
4,569	3,655	2,741	2,741	2,741	2,741	2,741	2,741
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
4,569	3,655	2,741	2,741	2,741	2,741	2,741	2,741
0	0	0	0	0	0	0	0
4,569	3,655	2,741	2,741	2,741	2,741	2,741	2,741

NITROGEN FACILITY SUMMARY

Dale Service Corp #8
POTOMAC Trading Basin



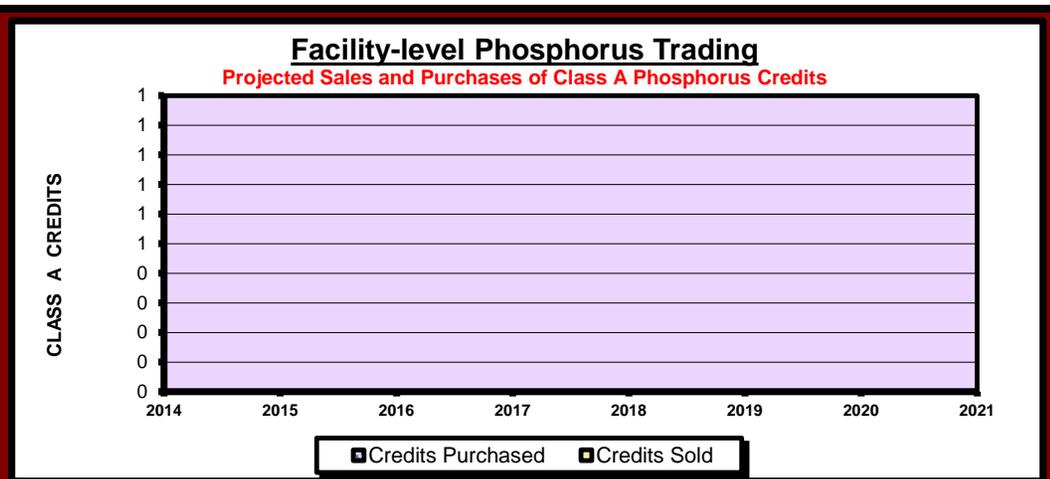
Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60
4.10	4.20	4.30	4.30	4.30	4.30	4.30	4.30
3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
37,460	38,374	39,288	39,288	39,288	39,288	39,288	39,288
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
37,460	38,374	39,288	39,288	39,288	39,288	39,288	39,288
42,029	42,029	42,029	42,029	42,029	42,029	42,029	42,029
4,569	3,655	2,741	2,741	2,741	2,741	2,741	2,741
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
4,569	3,655	2,741	2,741	2,741	2,741	2,741	2,741
0	0	0	0	0	0	0	0
4,569	3,655	2,741	2,741	2,741	2,741	2,741	2,741

PHOSPHORUS FACILITY SUMMARY

Dale Service Corp #1
POTOMAC Trading Basin



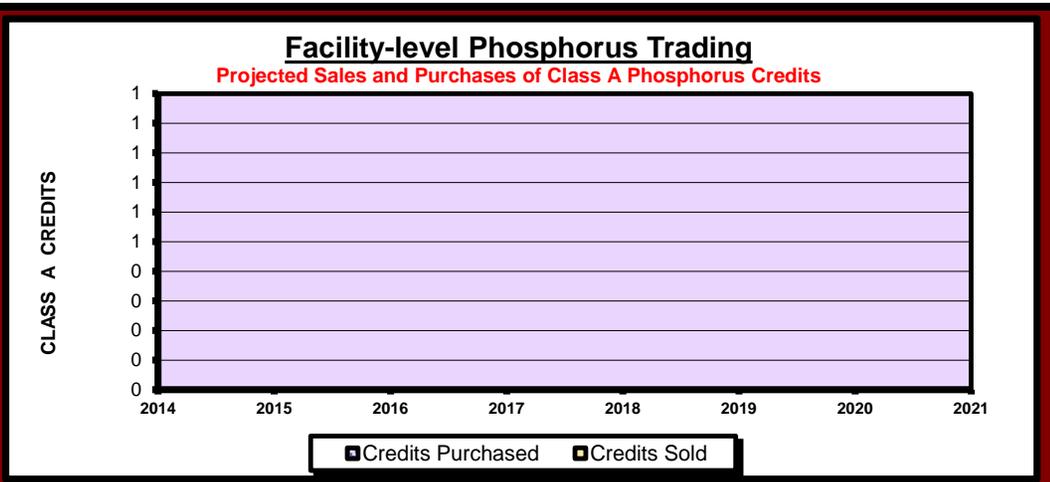
Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60
4.10	4.20	4.30	4.30	4.30	4.30	4.30	4.30
0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
2,248	2,302	2,357	2,357	2,357	2,357	2,357	2,357
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2,248	2,302	2,357	2,357	2,357	2,357	2,357	2,357
2,522	2,522	2,522	2,522	2,522	2,522	2,522	2,522
274	220	165	165	165	165	165	165
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
274	220	165	165	165	165	165	165
0	0	0	0	0	0	0	0
274	220	165	165	165	165	165	165

PHOSPHORUS FACILITY SUMMARY

Dale Service Corp #8
POTOMAC Trading Basin



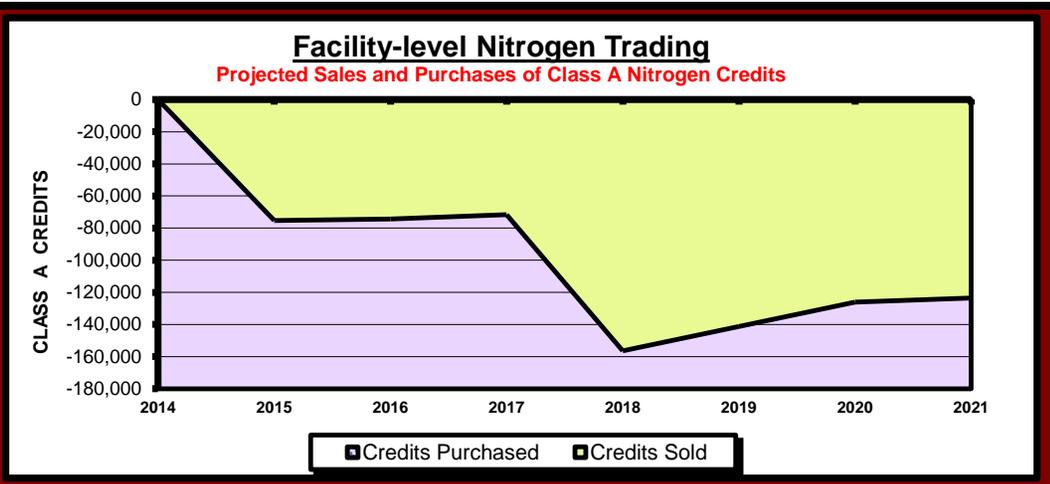
Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60
4.10	4.20	4.30	4.30	4.30	4.30	4.30	4.30
0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
2,248	2,302	2,357	2,357	2,357	2,357	2,357	2,357
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2,248	2,302	2,357	2,357	2,357	2,357	2,357	2,357
2,522	2,522	2,522	2,522	2,522	2,522	2,522	2,522
274	220	165	165	165	165	165	165
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
274	220	165	165	165	165	165	165
0	0	0	0	0	0	0	0
274	220	165	165	165	165	165	165

NITROGEN FACILITY SUMMARY

Fairfax Co-Noman Cole
POTOMAC Trading Basin



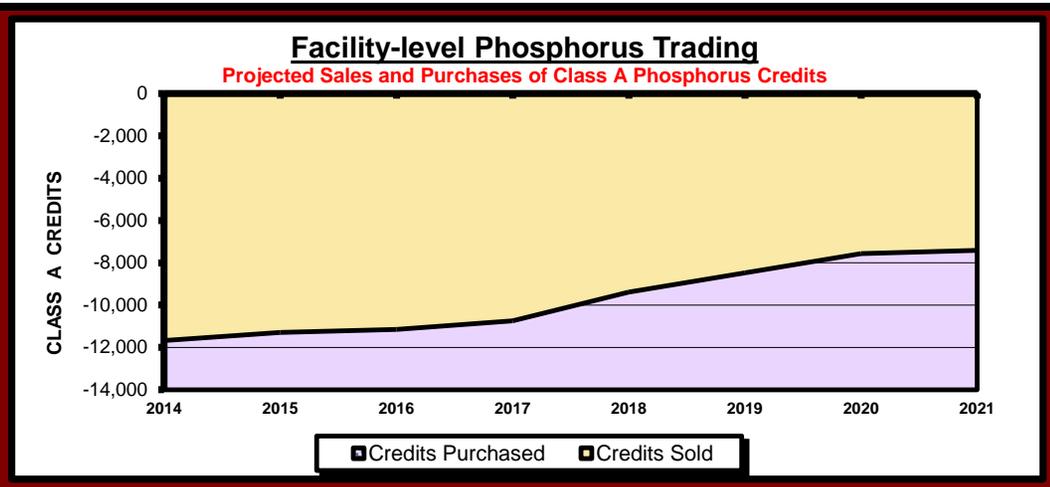
Loading & Credit Summary

Design Flow (mgd)	67.00
Projected Flow (mgd)	45.70
Projected Avg. Annual Concentration (mg/L)	3.00
Discharged Load (end of pipe)	417,546
Delivery Factor	1.00
Expected Load	417,546
Delivered WLA	612,158
Expected Credits (delivered)	194,612
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	194,612
Class A Credit Sales (Purchases)	0
Expected Class B Credits	194,612

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
67.00	67.00	67.00	67.00	67.00	67.00	67.00	67.00
45.70	46.40	46.66	47.40	49.88	51.54	53.20	53.48
3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
417,546	423,942	426,317	433,079	455,738	470,904	486,071	488,630
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
417,546	423,942	426,317	433,079	455,738	470,904	486,071	488,630
612,158	612,158	612,158	612,158	612,158	612,158	612,158	612,158
194,612	188,216	185,841	179,079	156,420	141,254	126,087	123,528
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
194,612	188,216	185,841	179,079	156,420	141,254	126,087	123,528
0	75,286	74,336	71,632	156,420	141,254	126,087	123,528
194,612	112,930	111,505	107,447	0	0	0	0

PHOSPHORUS FACILITY SUMMARY

Fairfax Co-Noman Cole
<i>POTOMAC Trading Basin</i>



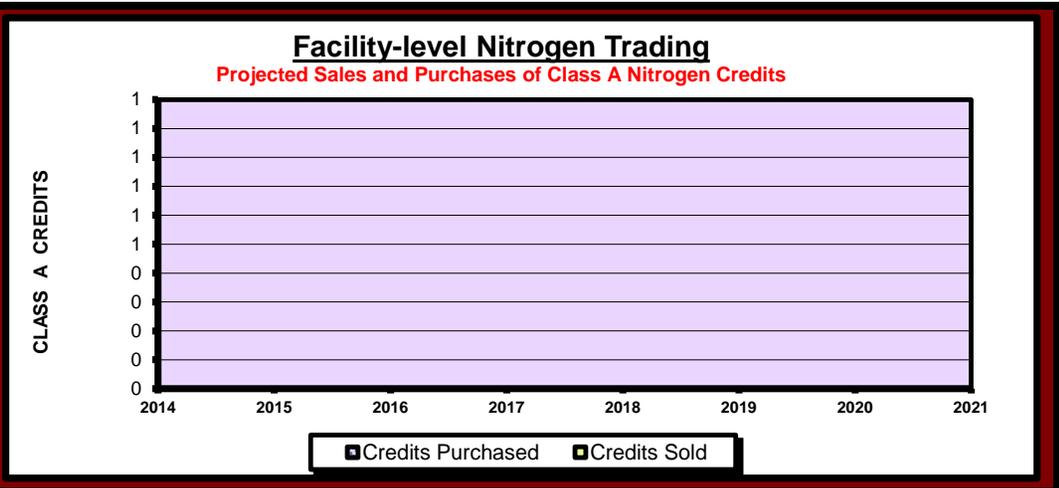
Loading & Credit Summary	
Design Flow (mgd)	67.00
Projected Flow (mgd)	45.70
Projected Avg. Annual Concentration (mg/L)	0.18
Discharged Load (end of pipe)	25,053
Delivery Factor	1.00
Expected Load	25,053
Delivered WLA	36,729
Expected Credits (delivered)	11,676
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	11,676
Class A Credit Sales (Purchases)	11,676
Expected Class B Credits	0

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
67.00	67.00	67.00	67.00	67.00	67.00	67.00	67.00
45.70	46.40	46.66	47.40	49.88	51.54	53.20	53.48
0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
25,053	25,437	25,579	25,985	27,344	28,254	29,164	29,318
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
25,053	25,437	25,579	25,985	27,344	28,254	29,164	29,318
36,729	36,729	36,729	36,729	36,729	36,729	36,729	36,729
11,676	11,292	11,150	10,744	9,385	8,475	7,565	7,411
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
11,676	11,292	11,150	10,744	9,385	8,475	7,565	7,411
0	0	0	0	0	0	0	0

NITROGEN FACILITY SUMMARY

FCWSA-Vint Hill

POTOMAC Trading Basin

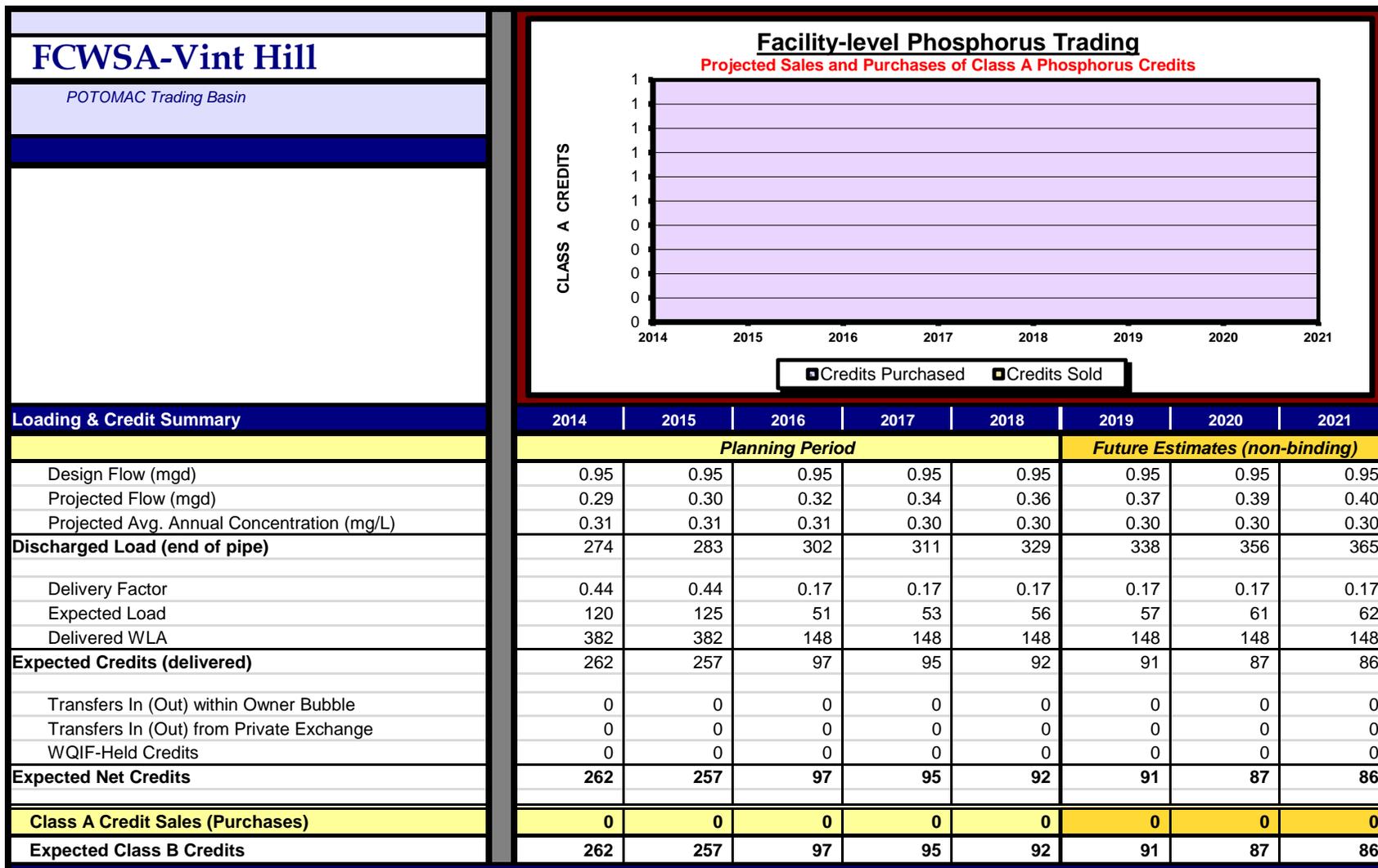


Loading & Credit Summary

Design Flow (mgd)	0.95
Projected Flow (mgd)	0.29
Projected Avg. Annual Concentration (mg/L)	4.00
Discharged Load (end of pipe)	3,533
Delivery Factor	0.58
Expected Load	2,049
Delivered WLA	6,712
Expected Credits (delivered)	4,663
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	4,663
Class A Credit Sales (Purchases)	0
Expected Class B Credits	4,663

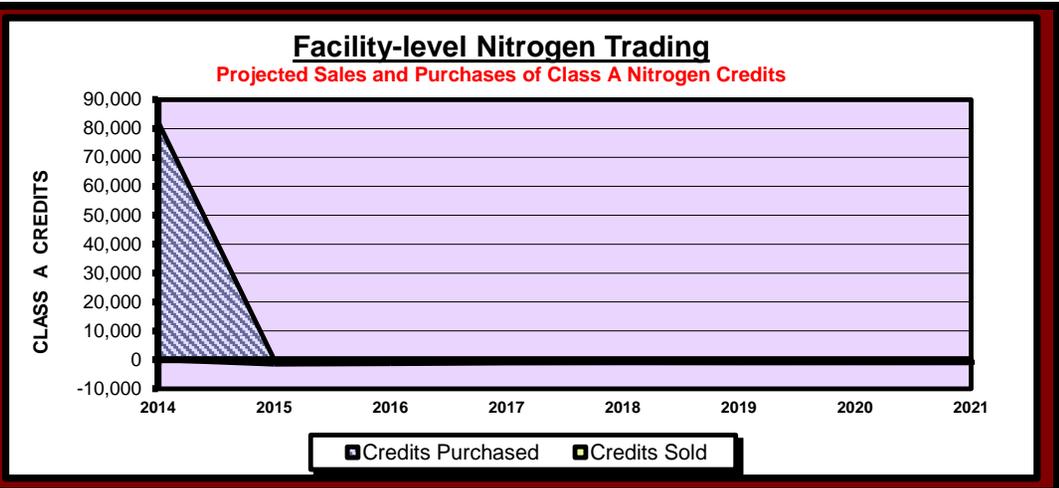
2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
0.29	0.30	0.32	0.34	0.36	0.37	0.39	0.40
4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
3,533	3,655	3,898	4,142	4,386	4,507	4,751	4,873
0.58	0.58	0.05	0.05	0.05	0.05	0.05	0.05
2,049	2,120	195	207	219	225	238	244
6,712	6,712	579	579	579	579	579	579
4,663	4,592	384	372	360	354	341	335
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
4,663	4,592	384	372	360	354	341	335
0	0	0	0	0	0	0	0
4,663	4,592	384	372	360	354	341	335

PHOSPHORUS FACILITY SUMMARY



NITROGEN FACILITY SUMMARY

Front Royal
<i>POTOMAC Trading Basin</i>



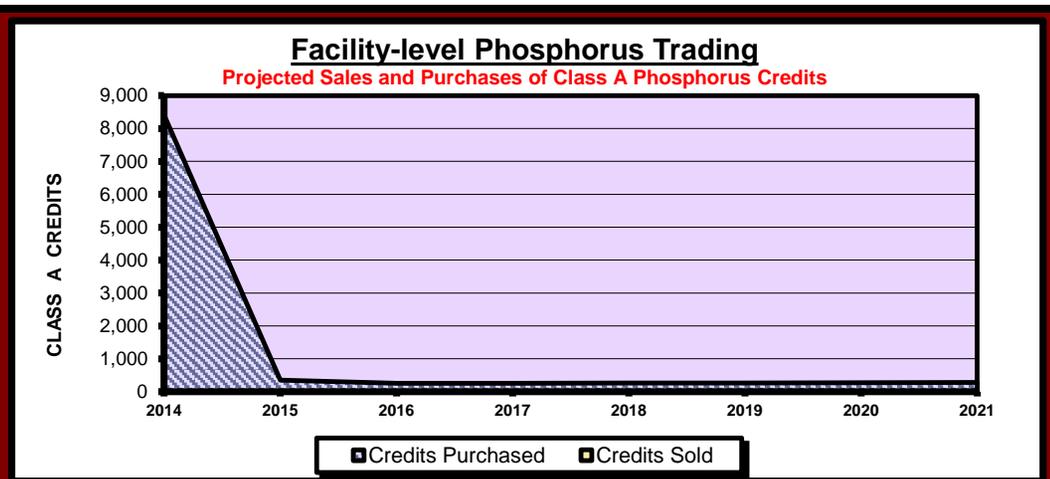
Loading & Credit Summary

Design Flow (mgd)	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Projected Flow (mgd)	3.80	4.50	4.52	4.53	4.54	4.55	4.56	4.57
Projected Avg. Annual Concentration (mg/L)	14.83	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Discharged Load (end of pipe)	171,629	41,115	41,298	41,389	41,481	41,572	41,663	41,755
Delivery Factor	0.67	0.67	0.61	0.61	0.61	0.61	0.61	0.61
Expected Load	114,992	27,547	25,192	25,247	25,303	25,359	25,415	25,470
Delivered WLA	32,648	32,648	29,725	29,725	29,725	29,725	29,725	29,725
Expected Credits (delivered)	(82,344)	5,101	4,533	4,478	4,422	4,366	4,310	4,255
Transfers In (Out) within Owner Bubble	0	0	0	0	0	0	0	0
Transfers In (Out) from Private Exchange	0	0	0	0	0	0	0	0
WQIF-Held Credits	0	0	0	0	0	0	0	0
Expected Net Credits	(82,344)	5,101	4,533	4,478	4,422	4,366	4,310	4,255
Class A Credit Sales (Purchases)	(82,344)	1,530	1,360	1,120	1,056	1,092	1,078	1,064
Expected Class B Credits	0	3,571	3,173	3,358	3,366	3,274	3,232	3,191

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
3.80	4.50	4.52	4.53	4.54	4.55	4.56	4.57
14.83	3.00	3.00	3.00	3.00	3.00	3.00	3.00
171,629	41,115	41,298	41,389	41,481	41,572	41,663	41,755
0.67	0.67	0.61	0.61	0.61	0.61	0.61	0.61
114,992	27,547	25,192	25,247	25,303	25,359	25,415	25,470
32,648	32,648	29,725	29,725	29,725	29,725	29,725	29,725
(82,344)	5,101	4,533	4,478	4,422	4,366	4,310	4,255
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
(82,344)	5,101	4,533	4,478	4,422	4,366	4,310	4,255
(82,344)	1,530	1,360	1,120	1,056	1,092	1,078	1,064
0	3,571	3,173	3,358	3,366	3,274	3,232	3,191

PHOSPHORUS FACILITY SUMMARY

Front Royal
<i>POTOMAC Trading Basin</i>



Loading & Credit Summary

Design Flow (mgd)	Projected Flow (mgd)	Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)	Delivery Factor	Expected Load
Delivered WLA	Expected Credits (delivered)	Transfers In (Out) within Owner Bubble
	Transfers In (Out) from Private Exchange	WQIF-Held Credits
Expected Net Credits	Class A Credit Sales (Purchases)	Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
3.80	4.50	4.52	4.53	4.54	4.55	4.56	4.57
1.26	0.30	0.30	0.30	0.30	0.30	0.30	0.30
14,582	4,112	4,130	4,139	4,148	4,157	4,166	4,175
0.77	0.77	0.54	0.54	0.54	0.54	0.54	0.54
11,228	3,166	2,230	2,235	2,240	2,245	2,250	2,255
2,814	2,814	1,974	1,974	1,974	1,974	1,974	1,974
(8,414)	(352)	(256)	(261)	(266)	(271)	(276)	(281)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
(8,414)	(352)	(256)	(261)	(266)	(271)	(276)	(281)
0	0	0	0	0	0	0	0

Owner Bubble: Frederick-Winchester Service Authority

The facilities listed below have received an aggregated mass load limit pursuant to 9 VAC 25-820-70, Part 1.B.2., which is also referred to as an “owner bubble”. Accordingly, compliance is determined solely on an aggregate basis rather than by comparison of individual facility loads with respective individual WLAs.

The “Credit Transferred within Bubble” section of each table forecasts the use of Credits within the owner bubble during each Compliance Year, and must necessarily sum to zero. The specific Credit transfers shown in this table are provided for internal planning purposes only and, accordingly, are not binding and may change based on the actual performance of individual facilities within the bubble.

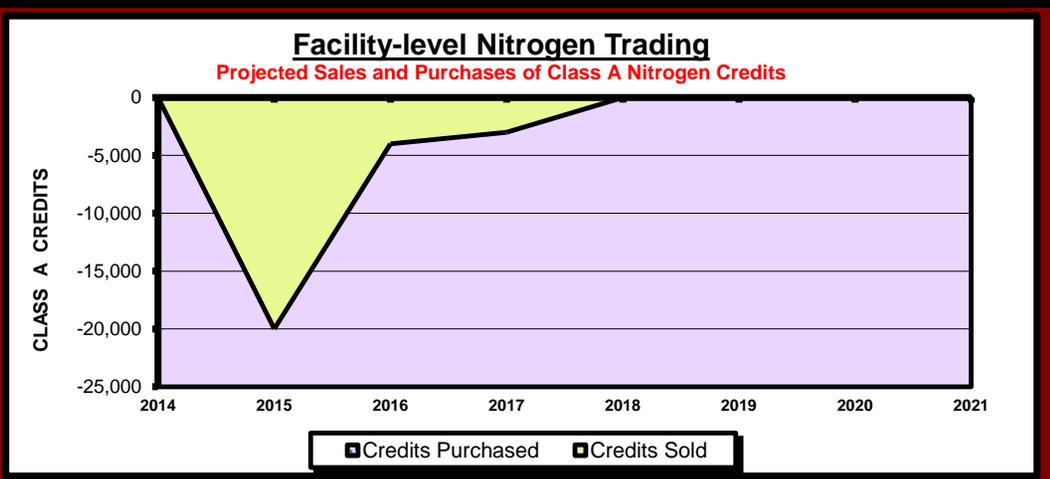
Expected Net Credits for an owner bubble may be either positive or negative. If Expected Net Credits is positive, the owner may pledge a percentage of such Credits to the Exchange. If Expected Net Credits is negative, Net Expected Credits identifies the number of Credits that must be purchased to comply with the aggregate Delivered WLA of the bubble.

NITROGEN Credits	Exchange 5-year Planning Period					Future Projections		
	2014	2015	2016	2017	2018	2019	2020	2021
Credits Transferred within Bubble								
Opequon	-	-	-	-	-	-	-	-
Parkins Mills	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
TOTAL (must sum to 0)	-	-	-	-	-	-	-	-
Credits Available outside Bubble								
Opequon	41,828	40,138	13,389	12,677	11,964	11,014	10,301	9,589
Parkins Mills	26,594	25,213	7,820	6,632	7,523	6,810	5,979	5,503
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Expected Net Credits	68,422	65,351	21,209	19,309	19,487	17,824	16,280	15,092
Class A Sales (Purchases)	0	26,000	5,000	4,000	0	0	0	0
<i>Expected Class B Credits</i>	<i>68,422</i>	<i>39,351</i>	<i>16,209</i>	<i>15,309</i>	<i>19,487</i>	<i>17,824</i>	<i>16,280</i>	<i>15,092</i>
<i>WQIF-Held Credits</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>

PHOSPHORUS Credits	Exchange 5-year Planning Period					Future Projections		
	2014	2015	2016	2017	2018	2019	2020	2021
Credits Transferred within Bubble								
Opequon	-	-	-	-	-	-	-	-
Parkins Mills	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
TOTAL (must sum to 0)	-	-	-	-	-	-	-	-
Credits Available outside Bubble								
Opequon	3,834	3,658	2,418	2,270	2,122	1,925	1,777	1,629
Parkins Mills	2,076	1,865	1,135	938	740	592	419	321
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Expected Net Credits	5,910	5,523	3,553	3,208	2,862	2,517	2,196	1,950
Class A Sales (Purchases)	0	0	0	0	0	0	0	0
<i>Expected Class B Credits</i>	<i>5,910</i>	<i>5,523</i>	<i>3,553</i>	<i>3,208</i>	<i>2,862</i>	<i>2,517</i>	<i>2,196</i>	<i>1,950</i>
<i>WQIF-Held Credits</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>

NITROGEN FACILITY SUMMARY

FWSA-Opequon
 POTOMAC Trading Basin



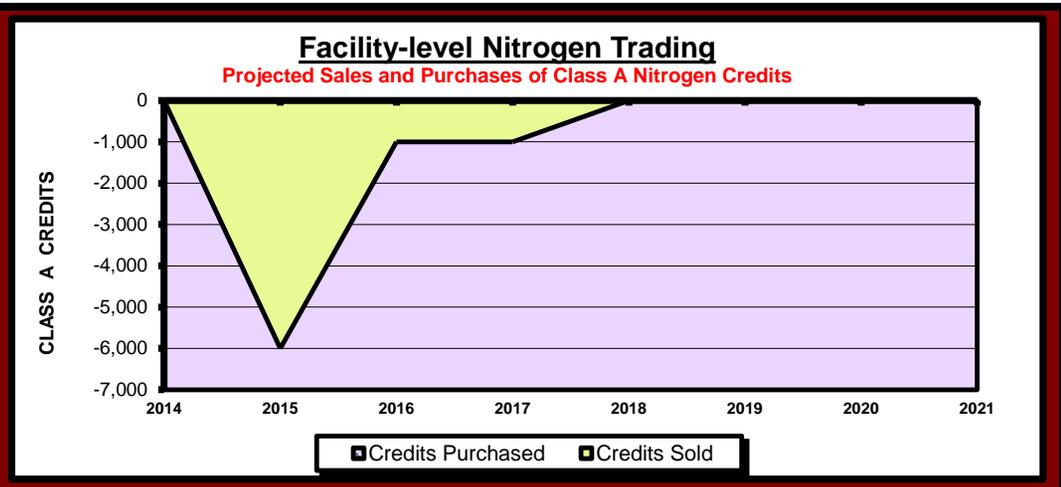
Loading & Credit Summary

Design Flow (mgd)	12.60
Projected Flow (mgd)	7.15
Projected Avg. Annual Concentration (mg/L)	3.00
Discharged Load (end of pipe)	65,327
Delivery Factor	0.74
Expected Load	48,342
Delivered WLA	90,170
Expected Credits (delivered)	41,828
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	41,828
Class A Credit Sales (Purchases)	0
Expected Class B Credits	41,828

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
12.60	12.60	12.60	12.60	12.60	12.60	12.60	12.60
7.15	7.40	7.70	8.00	8.30	8.70	9.00	9.30
3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
65,327	67,611	70,352	73,093	75,834	79,489	82,230	84,971
0.74	0.74	0.26	0.26	0.26	0.26	0.26	0.26
48,342	50,032	18,292	19,004	19,717	20,667	21,380	22,092
90,170	90,170	31,681	31,681	31,681	31,681	31,681	31,681
41,828	40,138	13,389	12,677	11,964	11,014	10,301	9,589
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
41,828	40,138	13,389	12,677	11,964	11,014	10,301	9,589
0	20,000	4,000	3,000	0	0	0	0
41,828	20,138	9,389	9,677	11,964	11,014	10,301	9,589

NITROGEN FACILITY SUMMARY

FWSA-Parkins Mill
POTOMAC Trading Basin



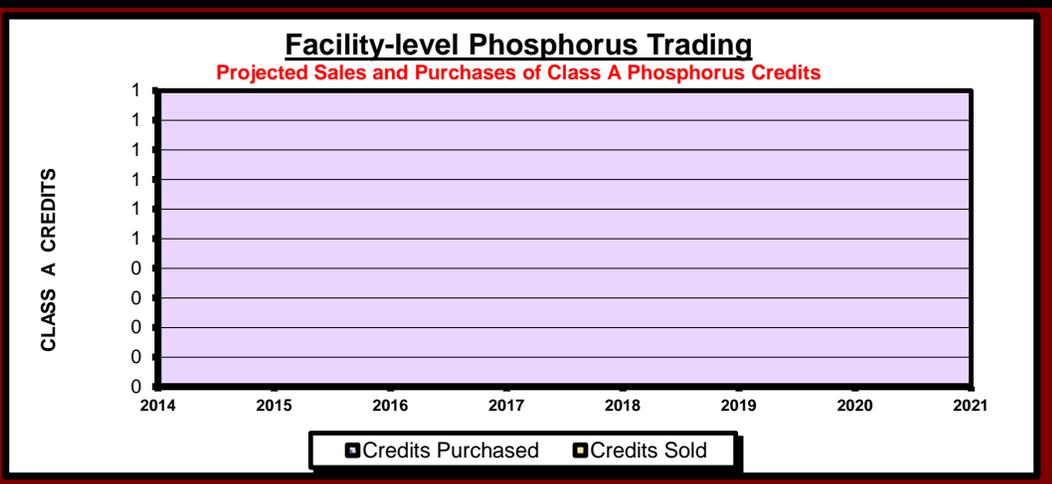
Loading & Credit Summary

Design Flow (mgd)	5.00
Projected Flow (mgd)	2.05
Projected Avg. Annual Concentration (mg/L)	4.00
Discharged Load (end of pipe)	24,974
Delivery Factor	0.74
Expected Load	18,480
Delivered WLA	45,074
Expected Credits (delivered)	26,594
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	26,594
Class A Credit Sales (Purchases)	0
Expected Class B Credits	26,594

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
2.05	2.35	2.70	3.10	3.50	3.80	4.15	4.35
4.00	3.75	3.75	3.75	3.00	3.00	3.00	3.00
24,974	26,839	30,836	35,405	31,978	34,719	37,917	39,745
0.74	0.74	0.26	0.26	0.26	0.26	0.26	0.26
18,480	19,861	8,017	9,205	8,314	9,027	9,858	10,334
45,074	45,074	15,837	15,837	15,837	15,837	15,837	15,837
26,594	25,213	7,820	6,632	7,523	6,810	5,979	5,503
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
26,594	25,213	7,820	6,632	7,523	6,810	5,979	5,503
0	6,000	1,000	1,000	0	0	0	0
26,594	19,213	6,820	5,632	7,523	6,810	5,979	5,503

PHOSPHORUS FACILITY SUMMARY

FWSA-Opequon
POTOMAC Trading Basin



Loading & Credit Summary

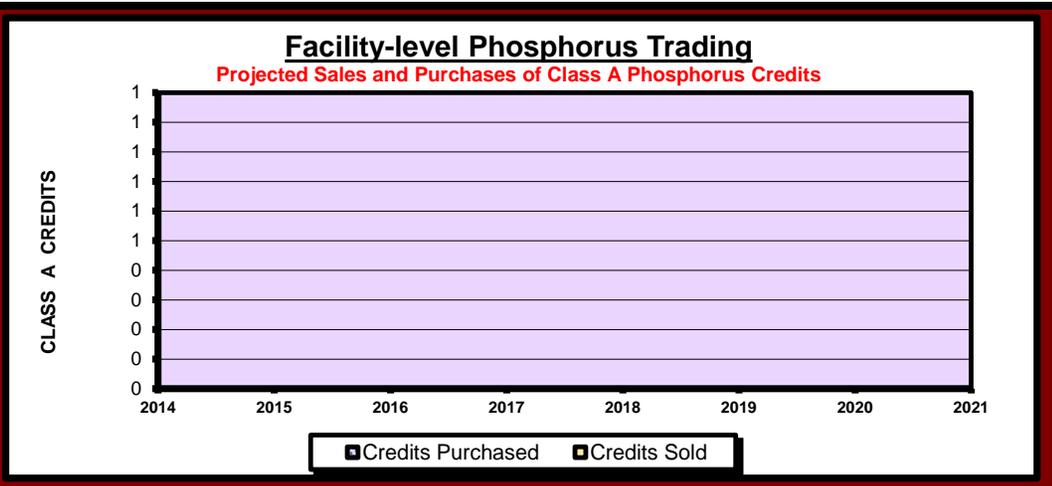
Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
12.60	12.60	12.60	12.60	12.60	12.60	12.60	12.60
7.15	7.40	7.70	8.00	8.30	8.70	9.00	9.30
0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
6,533	6,761	7,035	7,309	7,583	7,949	8,223	8,497
0.77	0.77	0.54	0.54	0.54	0.54	0.54	0.54
5,030	5,206	3,799	3,947	4,095	4,292	4,440	4,588
8,864	8,864	6,217	6,217	6,217	6,217	6,217	6,217
3,834	3,658	2,418	2,270	2,122	1,925	1,777	1,629
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
3,834	3,658	2,418	2,270	2,122	1,925	1,777	1,629
0	0	0	0	0	0	0	0
3,834	3,658	2,418	2,270	2,122	1,925	1,777	1,629

PHOSPHORUS FACILITY SUMMARY

FWSA-Parkins Mill

POTOMAC Trading Basin



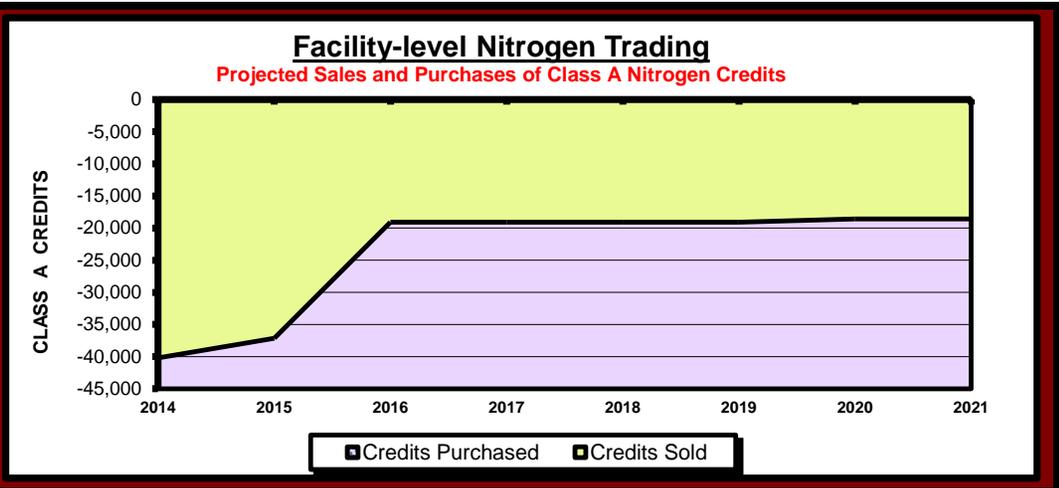
Loading & Credit Summary

Design Flow (mgd)	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Projected Flow (mgd)	2.05	2.35	2.70	3.10	3.50	3.80	4.15	4.35
Projected Avg. Annual Concentration (mg/L)	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
Discharged Load (end of pipe)	1,873	2,147	2,467	2,832	3,198	3,472	3,792	3,974
Delivery Factor	0.77	0.77	0.54	0.54	0.54	0.54	0.54	0.54
Expected Load	1,442	1,653	1,332	1,529	1,727	1,875	2,048	2,146
Delivered WLA	3,518	3,518	2,467	2,467	2,467	2,467	2,467	2,467
Expected Credits (delivered)	2,076	1,865	1,135	938	740	592	419	321
Transfers In (Out) within Owner Bubble	0	0	0	0	0	0	0	0
Transfers In (Out) from Private Exchange	0	0	0	0	0	0	0	0
WQIF-Held Credits	0	0	0	0	0	0	0	0
Expected Net Credits	2,076	1,865	1,135	938	740	592	419	321
Class A Credit Sales (Purchases)	0							
Expected Class B Credits	2,076	1,865	1,135	938	740	592	419	321

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
2.05	2.35	2.70	3.10	3.50	3.80	4.15	4.35
0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
1,873	2,147	2,467	2,832	3,198	3,472	3,792	3,974
0.77	0.77	0.54	0.54	0.54	0.54	0.54	0.54
1,442	1,653	1,332	1,529	1,727	1,875	2,048	2,146
3,518	3,518	2,467	2,467	2,467	2,467	2,467	2,467
2,076	1,865	1,135	938	740	592	419	321
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
2,076	1,865	1,135	938	740	592	419	321
0	0	0	0	0	0	0	0
2,076	1,865	1,135	938	740	592	419	321

NITROGEN FACILITY SUMMARY

HRRSA-North River
<i>POTOMAC Trading Basin</i>

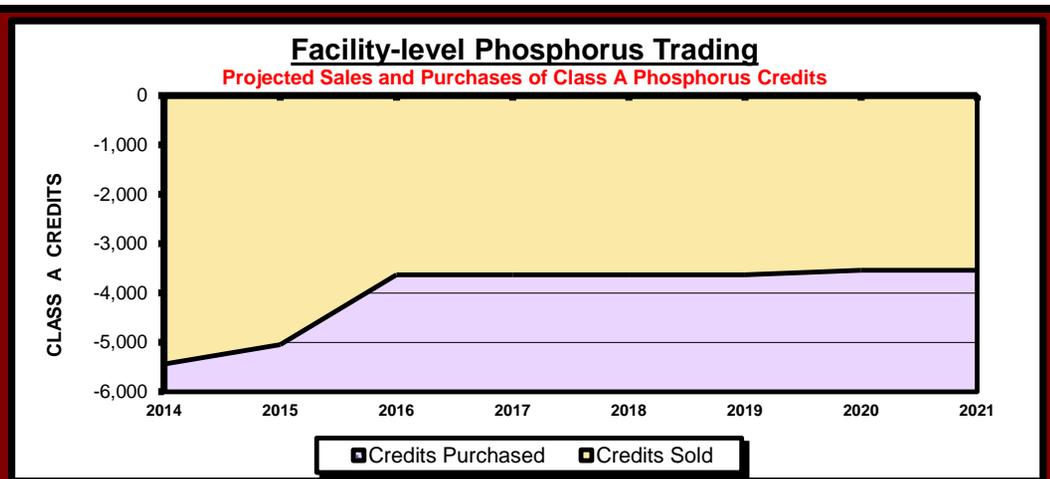


Loading & Credit Summary
Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
22.00	22.00	22.00	22.00	22.00	22.00	22.00	22.00
14.00	14.60	14.40	14.40	14.40	14.40	14.60	14.60
3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80
162,024	168,968	166,653	166,653	166,653	166,653	168,968	168,968
0.44	0.44	0.22	0.22	0.22	0.22	0.22	0.22
71,290	74,346	36,664	36,664	36,664	36,664	37,173	37,173
111,492	111,492	55,746	55,746	55,746	55,746	55,746	55,746
40,202	37,146	19,082	19,082	19,082	19,082	18,573	18,573
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
40,202	37,146	19,082	19,082	19,082	19,082	18,573	18,573
0	0	0	0	0	0	0	0

PHOSPHORUS FACILITY SUMMARY

HRRSA-North River
<i>POTOMAC Trading Basin</i>



Loading & Credit Summary
Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
22.00	22.00	22.00	22.00	22.00	22.00	22.00	22.00
14.00	14.60	14.40	14.40	14.40	14.40	14.60	14.60
0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28
11,939	12,450	12,280	12,280	12,280	12,280	12,450	12,450
0.77	0.77	0.54	0.54	0.54	0.54	0.54	0.54
9,193	9,587	6,631	6,631	6,631	6,631	6,723	6,723
14,633	14,633	10,262	10,262	10,262	10,262	10,262	10,262
5,440	5,046	3,631	3,631	3,631	3,631	3,539	3,539
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
5,440	5,046	3,631	3,631	3,631	3,631	3,539	3,539
0	0	0	0	0	0	0	0

Owner Bubble: King George County Service Authority (Potomac)

The facilities listed below have received an aggregated mass load limit pursuant to 9 VAC 25-820-70, Part 1.B.2., which is also referred to as an “owner bubble”. Accordingly, compliance is determined solely on an aggregate basis rather than by comparison of individual facility loads with respective individual WLAs.

The “Credit Transferred within Bubble” section of each table forecasts the use of Credits within the owner bubble during each Compliance Year, and must necessarily sum to zero. The specific Credit transfers shown in this table are provided for internal planning purposes only and, accordingly, are not binding and may change based on the actual performance of individual facilities within the bubble.

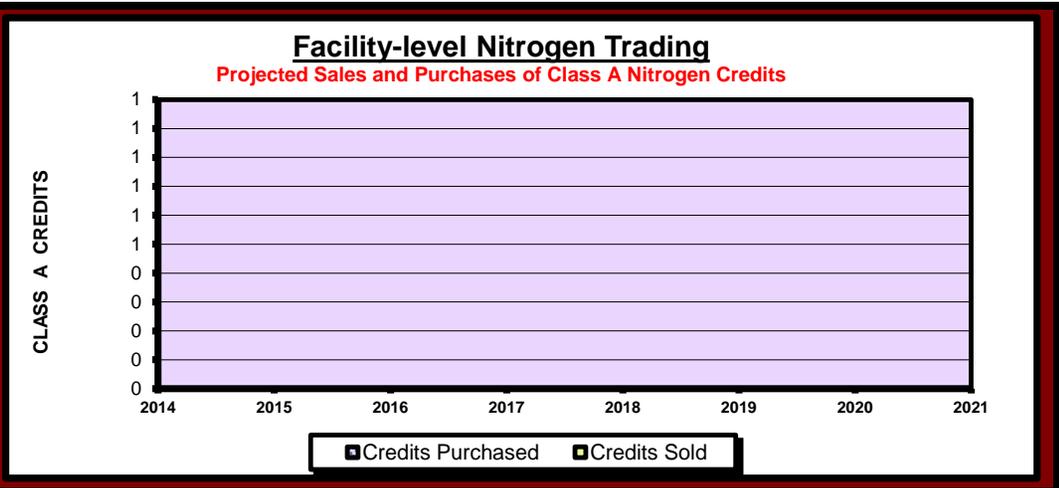
Expected Net Credits for an owner bubble may be either positive or negative. If Expected Net Credits is positive, the owner may pledge a percentage of such Credits to the Exchange. If Expected Net Credits is negative, Net Expected Credits identifies the number of Credits that must be purchased to comply with the aggregate Delivered WLA of the bubble.

NITROGEN Credits	Exchange 5-year Planning Period					Future Projections		
	2014	2015	2016	2017	2018	2019	2020	2021
Credits Transferred within Bubble								
Dahlgren	(488)	(640)	(549)	-	-	-	-	-
Fairview Beach	(1,005)	(1,005)	(1,096)	(427)	(427)	(427)	(579)	(579)
Purkins Corner	1,493	1,645	1,645	427	427	427	579	579
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
TOTAL (must sum to 0)	-	-	-	-	-	-	-	-
Credits Available outside Bubble								
Dahlgren	1,340	1,188	1,279	3,046	2,437	1,828	1,219	609
Fairview Beach	-	-	-	669	669	578	426	426
Purkins Corner	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Expected Net Credits	1,340	1,188	1,279	3,715	3,106	2,406	1,645	1,035
Class A Sales (Purchases)	0	0	0	0	0	0	0	0
<i>Expected Class B Credits</i>	<i>1,340</i>	<i>1,188</i>	<i>1,279</i>	<i>3,715</i>	<i>3,106</i>	<i>2,406</i>	<i>1,645</i>	<i>1,035</i>
<i>WQIF-Held Credits</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>

PHOSPHORUS Credits	Exchange 5-year Planning Period					Future Projections		
	2014	2015	2016	2017	2018	2019	2020	2021
Credits Transferred within Bubble								
Dahlgren	(123)	(137)	(131)	(40)	(40)	(40)	(55)	(55)
Fairview Beach	-	-	-	-	-	-	-	-
Purkins Corner	123	137	131	40	40	40	55	55
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
TOTAL (must sum to 0)	-	-	-	-	-	-	-	-
Credits Available outside Bubble								
Dahlgren	243	229	235	417	371	326	265	219
Fairview Beach	101	101	107	107	107	98	98	98
Purkins Corner	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Expected Net Credits	344	330	342	524	478	424	363	317
Class A Sales (Purchases)	0	0	0	0	0	0	0	0
<i>Expected Class B Credits</i>	<i>344</i>	<i>330</i>	<i>342</i>	<i>524</i>	<i>478</i>	<i>424</i>	<i>363</i>	<i>317</i>
<i>WQIF-Held Credits</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>

NITROGEN FACILITY SUMMARY

KGCSA-Dahlgren S.D.
POTOMAC Trading Basin

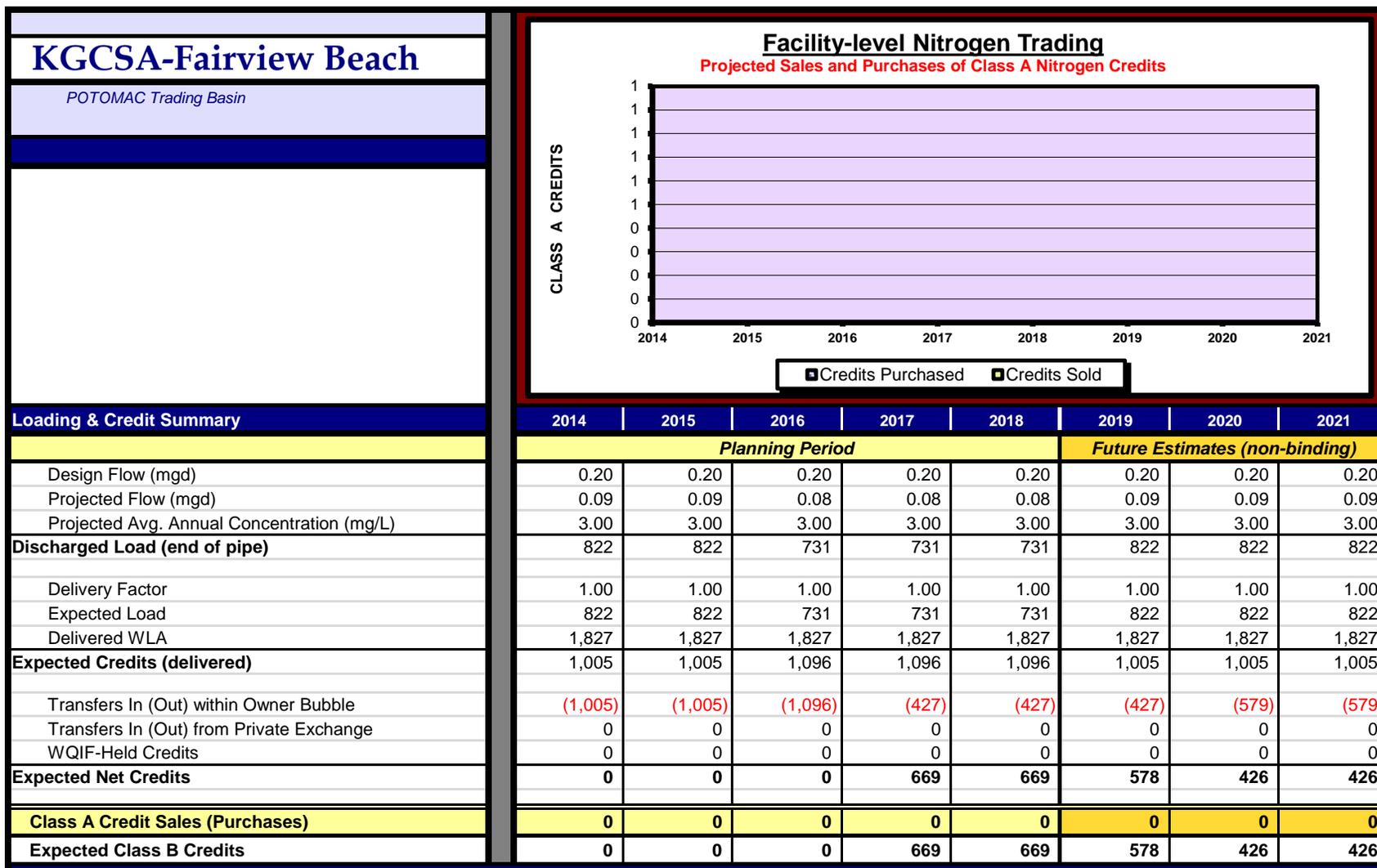


Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

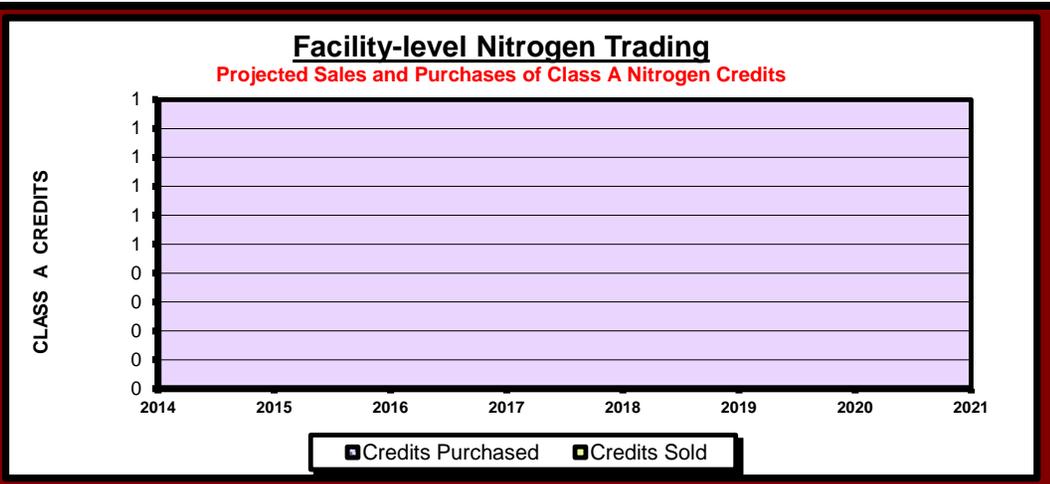
2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
0.60	0.60	0.60	0.50	0.55	0.60	0.65	0.70
4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
7,309	7,309	7,309	6,091	6,700	7,309	7,918	8,528
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
7,309	7,309	7,309	6,091	6,700	7,309	7,918	8,528
9,137	9,137	9,137	9,137	9,137	9,137	9,137	9,137
1,828	1,828	1,828	3,046	2,437	1,828	1,219	609
(488)	(640)	(549)	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
1,340	1,188	1,279	3,046	2,437	1,828	1,219	609
0	0	0	0	0	0	0	0
1,340	1,188	1,279	3,046	2,437	1,828	1,219	609

NITROGEN FACILITY SUMMARY



NITROGEN FACILITY SUMMARY

KGCSA-Purkins Corner
POTOMAC Trading Basin



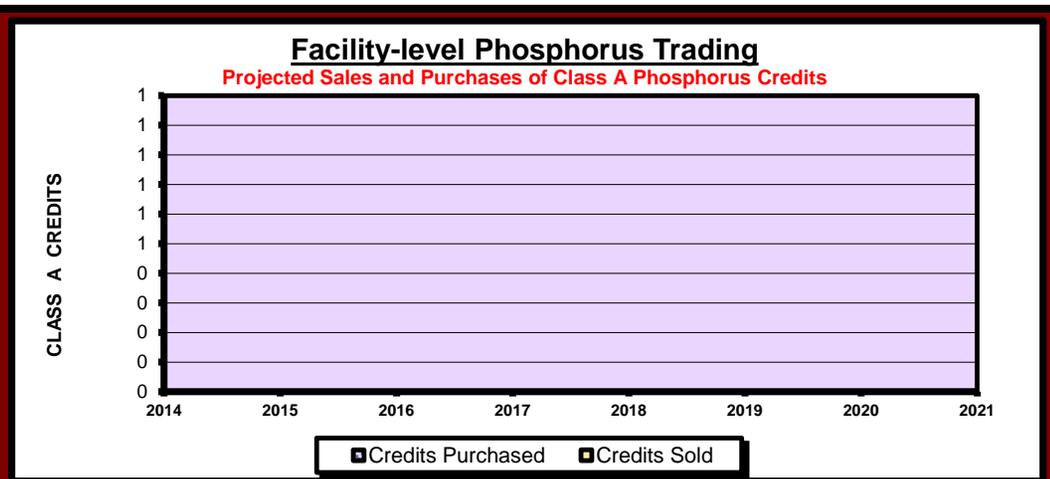
Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
0.09	0.09	0.09	0.10	0.10	0.10	0.11	0.11
10.00	10.00	10.00	5.00	5.00	5.00	5.00	5.00
2,589	2,741	2,741	1,523	1,523	1,523	1,675	1,675
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2,589	2,741	2,741	1,523	1,523	1,523	1,675	1,675
1,096	1,096	1,096	1,096	1,096	1,096	1,096	1,096
(1,493)	(1,645)	(1,645)	(427)	(427)	(427)	(579)	(579)
1,493	1,645	1,645	427	427	427	579	579
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

PHOSPHORUS FACILITY SUMMARY

KGCSA-Dahlgren S.D.
POTOMAC Trading Basin

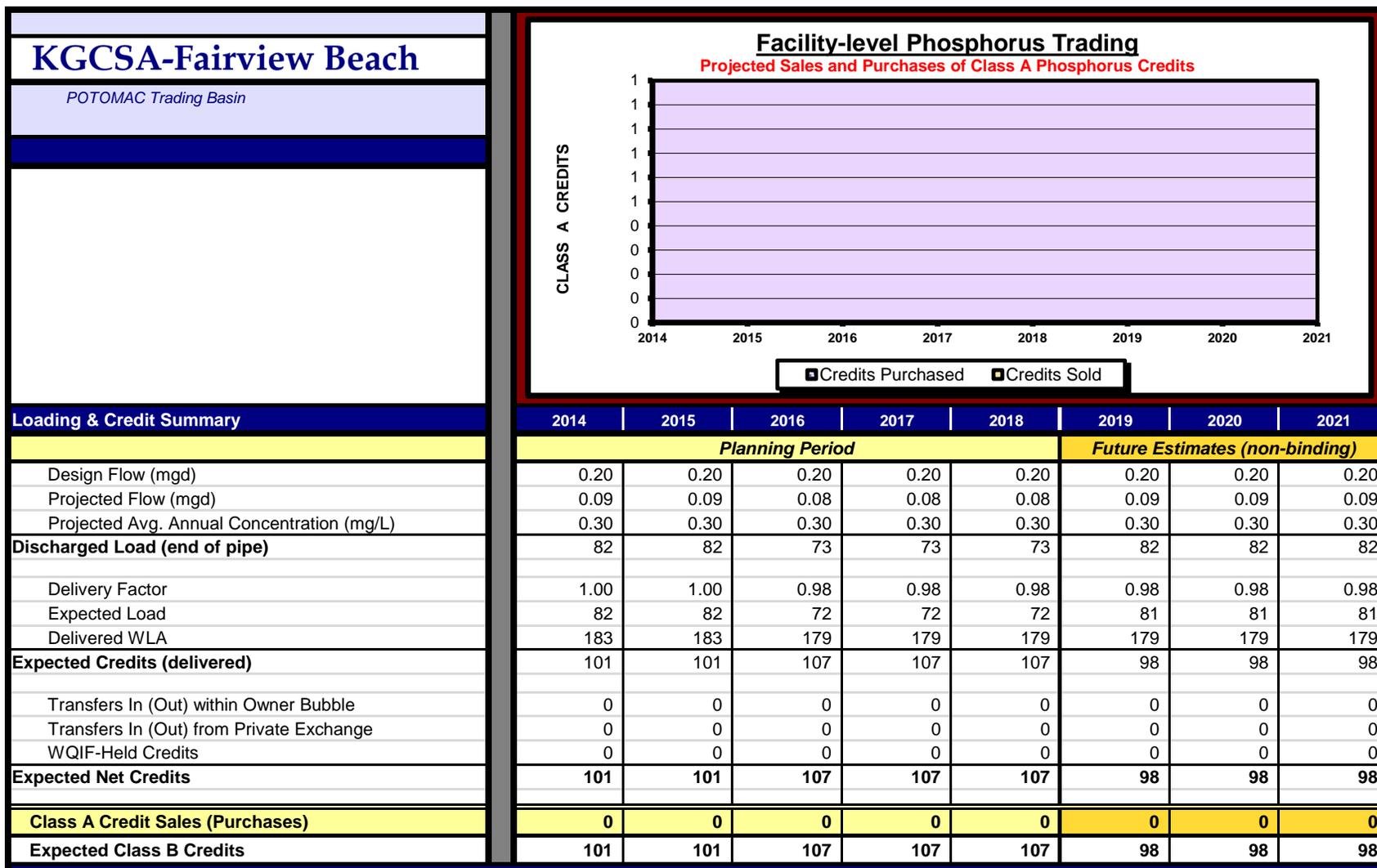


Loading & Credit Summary

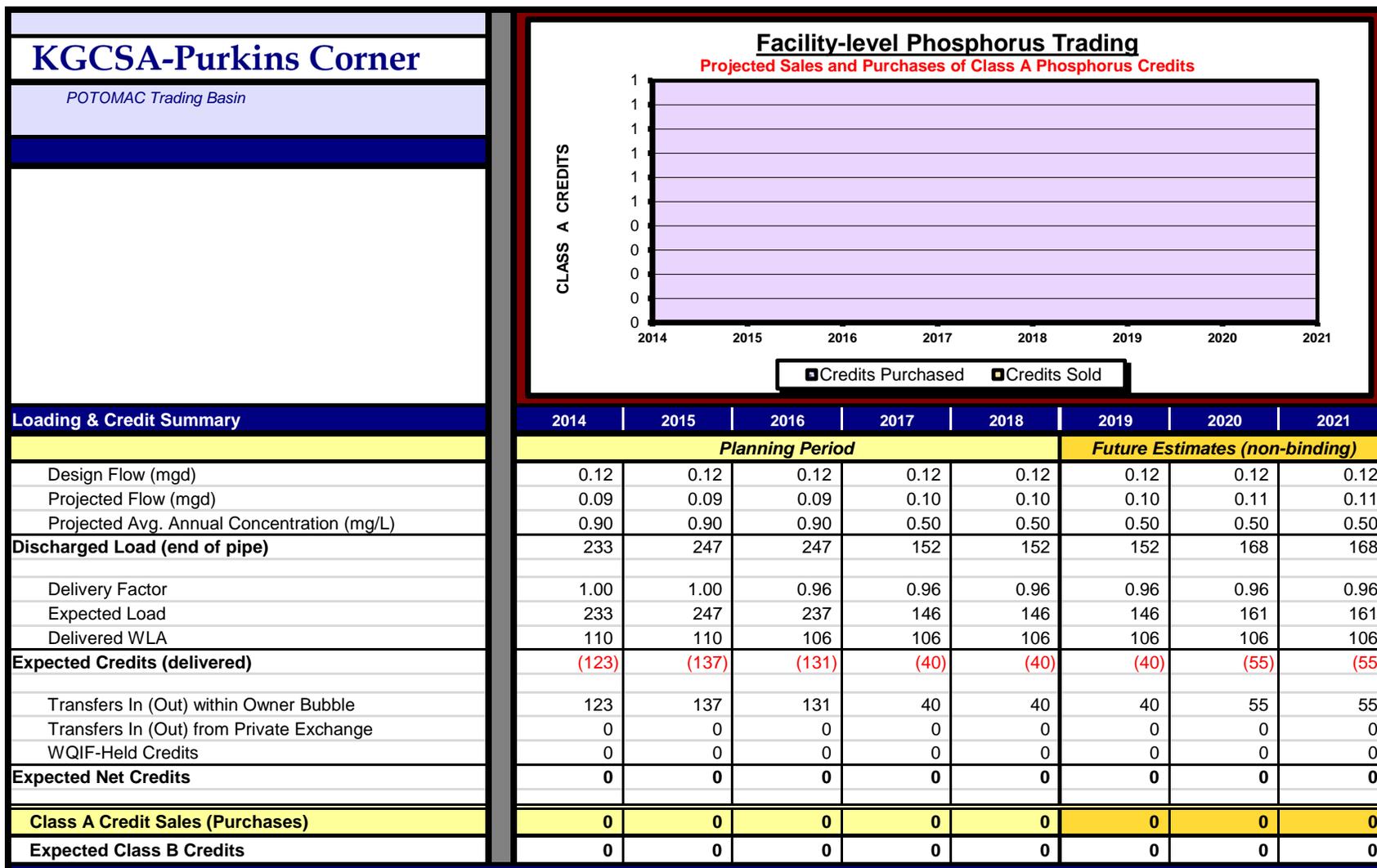
Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
0.60	0.60	0.60	0.50	0.55	0.60	0.65	0.70
0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
548	548	548	457	503	548	594	640
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
548	548	548	457	503	548	594	640
914	914	914	914	914	914	914	914
366	366	366	457	411	366	320	274
(123)	(137)	(131)	(40)	(40)	(40)	(55)	(55)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
243	229	235	417	371	326	265	219
0	0	0	0	0	0	0	0
243	229	235	417	371	326	265	219

PHOSPHORUS FACILITY SUMMARY

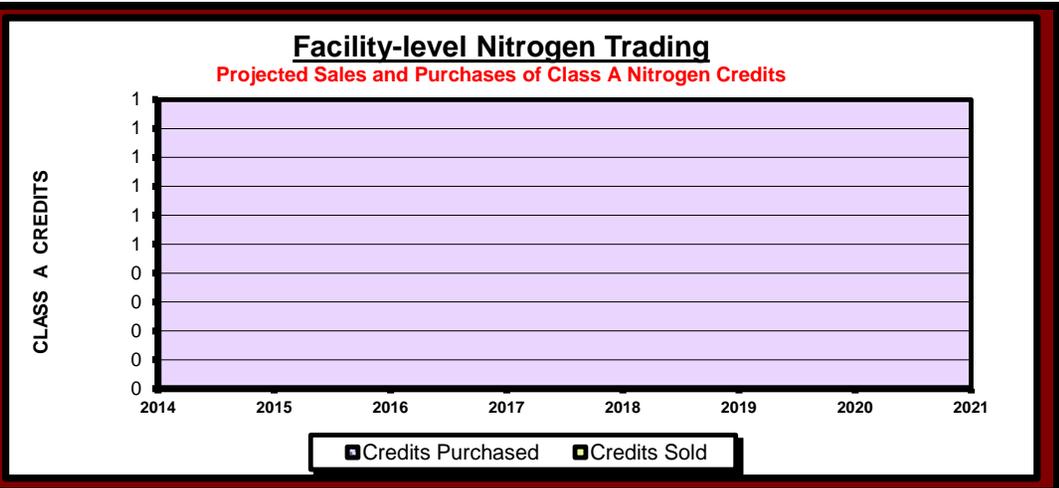


PHOSPHORUS FACILITY SUMMARY



NITROGEN FACILITY SUMMARY

Leesburg
POTOMAC Trading Basin



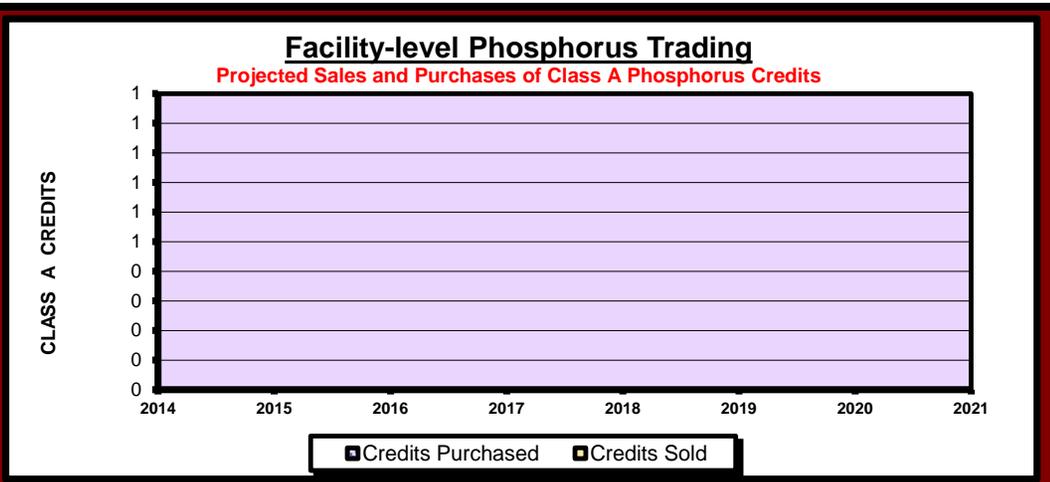
Loading & Credit Summary

Design Flow (mgd)	Projected Flow (mgd)	Projected Avg. Annual Concentration (mg/L)	Discharged Load (end of pipe)	Delivery Factor	Expected Load	Delivered WLA	Expected Credits (delivered)	Transfers In (Out) within Owner Bubble	Transfers In (Out) from Private Exchange	WQIF-Held Credits	Expected Net Credits
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2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
5.92	6.07	6.27	6.48	6.70	6.93	7.17	7.42
4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
72,119	73,946	76,419	78,990	81,658	84,435	87,322	90,331
0.83	0.83	0.80	0.80	0.80	0.80	0.80	0.80
59,859	61,375	61,135	63,192	65,326	67,548	69,858	72,265
101,113	101,113	97,458	97,458	97,458	97,458	97,458	97,458
41,254	39,738	36,323	34,266	32,132	29,910	27,600	25,193
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
(25,278)	(25,278)	(24,365)	(24,365)	(24,365)	(24,365)	(24,365)	(24,365)
15,976	14,460	11,958	9,901	7,767	5,545	3,235	828
0	0	0	0	0	0	0	0
15,976	14,460	11,958	9,901	7,767	5,545	3,235	828

PHOSPHORUS FACILITY SUMMARY

Leesburg
POTOMAC Trading Basin



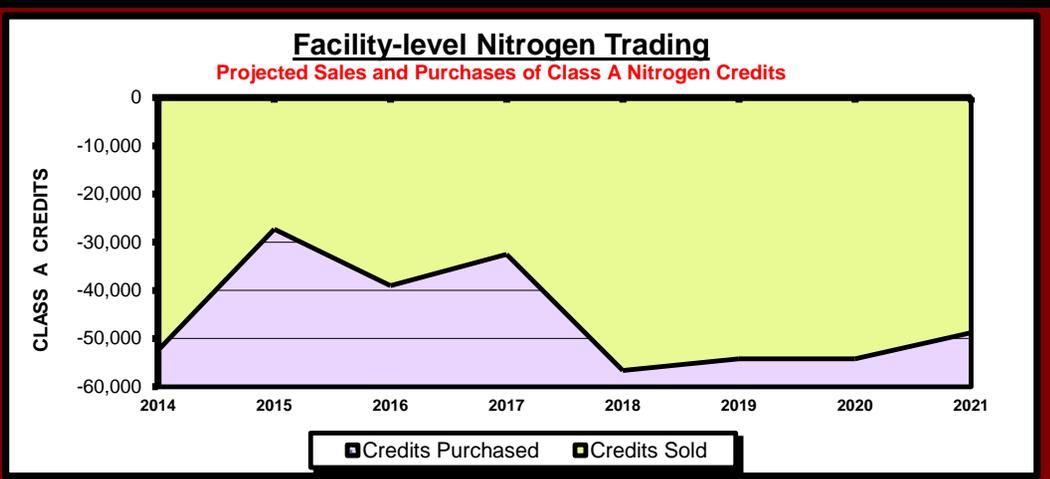
Loading & Credit Summary

Design Flow (mgd)	Projected Flow (mgd)	Projected Avg. Annual Concentration (mg/L)	Discharged Load (end of pipe)	Delivery Factor	Expected Load	Delivered WLA	Expected Credits (delivered)	Transfers In (Out) within Owner Bubble	Transfers In (Out) from Private Exchange	WQIF-Held Credits	Expected Net Credits
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2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
5.92	6.07	6.27	6.48	6.70	6.93	7.17	7.42
0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
5,409	5,546	5,731	5,924	6,124	6,333	6,549	6,775
0.77	0.77	0.54	0.54	0.54	0.54	0.54	0.54
4,165	4,270	3,095	3,199	3,307	3,420	3,537	3,658
7,035	7,035	4,934	4,934	4,934	4,934	4,934	4,934
2,870	2,765	1,839	1,735	1,627	1,514	1,397	1,276
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
(1,759)	(1,759)	(1,234)	(1,234)	(1,234)	(1,234)	(1,234)	(1,234)
1,111	1,006	605	501	393	280	163	42
0	0	0	0	0	0	0	0
1,111	1,006	605	501	393	280	163	42

NITROGEN FACILITY SUMMARY

Loudoun Water- Broad Run
<i>POTOMAC Trading Basin</i>

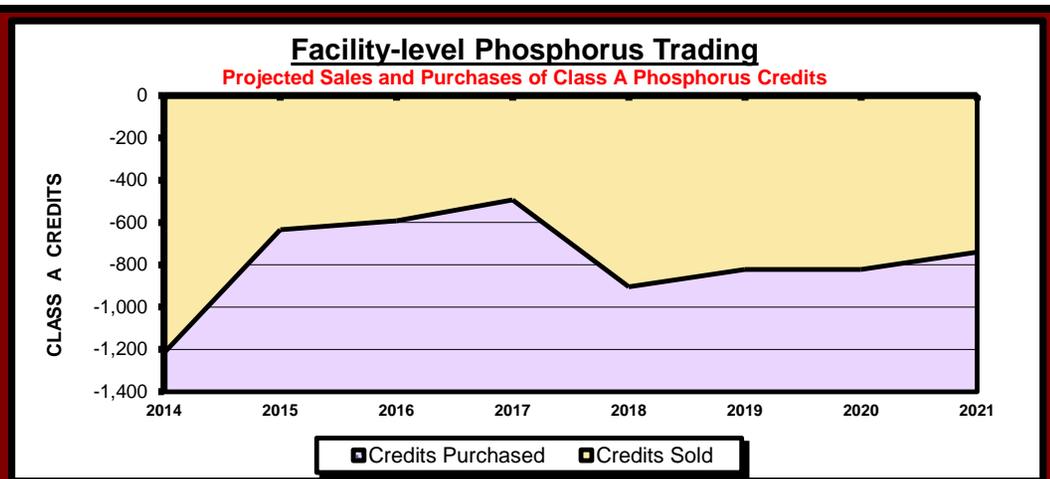


Loading & Credit Summary	
Design Flow (mgd)	11.00
Projected Flow (mgd)	4.52
Projected Avg. Annual Concentration (mg/L)	4.00
Discharged Load (end of pipe)	55,064
Delivery Factor	0.83
Expected Load	45,703
Delivered WLA	111,224
Expected Credits (delivered)	65,521
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	65,521
Class A Credit Sales (Purchases)	52,417
Expected Class B Credits	13,104

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
4.52	8.00	7.00	8.00	5.50	6.00	6.00	6.50
4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
55,064	97,458	85,276	97,458	67,002	73,093	73,093	79,185
0.83	0.83	0.89	0.89	0.89	0.89	0.89	0.89
45,703	80,890	75,895	86,738	59,632	65,053	65,053	70,474
111,224	111,224	119,264	119,264	119,264	119,264	119,264	119,264
65,521	30,334	43,369	32,526	59,632	54,211	54,211	48,790
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
65,521	30,334	43,369	32,526	59,632	54,211	54,211	48,790
52,417	27,301	39,032	32,526	56,632	54,211	54,211	48,790
13,104	3,033	4,337	0	3,000	0	0	0

PHOSPHORUS FACILITY SUMMARY

Loudoun Water- Broad Run
<i>POTOMAC Trading Basin</i>

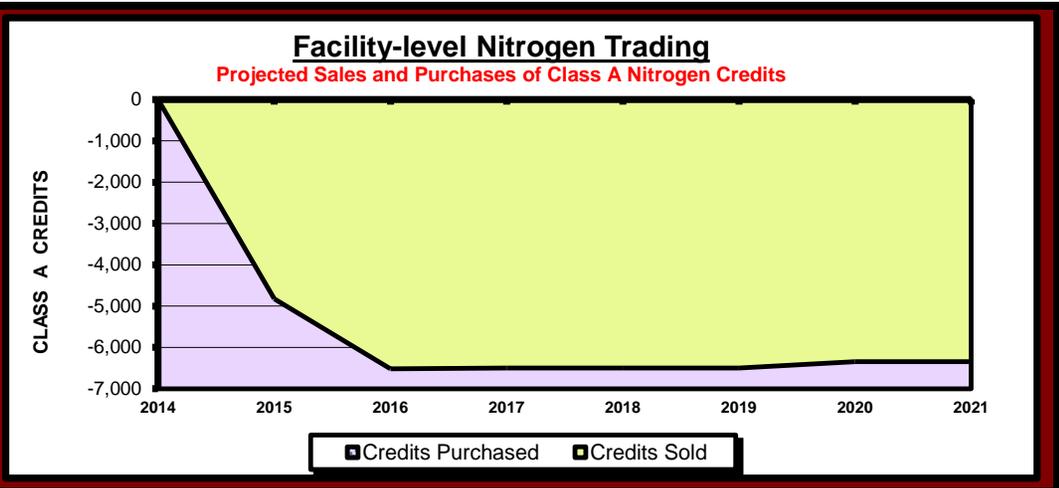


Loading & Credit Summary	
Design Flow (mgd)	
Projected Flow (mgd)	
Projected Avg. Annual Concentration (mg/L)	
Discharged Load (end of pipe)	
Delivery Factor	
Expected Load	
Delivered WLA	
Expected Credits (delivered)	
Transfers In (Out) within Owner Bubble	
Transfers In (Out) from Private Exchange	
WQIF-Held Credits	
Expected Net Credits	
Class A Credit Sales (Purchases)	
Expected Class B Credits	

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
4.52	8.00	7.00	8.00	5.50	6.00	6.00	6.50
0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
1,377	2,436	2,132	2,436	1,675	1,827	1,827	1,980
0.77	0.77	0.54	0.54	0.54	0.54	0.54	0.54
1,060	1,876	1,151	1,316	905	987	987	1,069
2,580	2,580	1,809	1,809	1,809	1,809	1,809	1,809
1,520	704	658	493	904	822	822	740
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
1,520	704	658	493	904	822	822	740
1,216	634	592	493	904	822	822	740
304	70	66	0	0	0	0	0

NITROGEN FACILITY SUMMARY

Luray
<i>POTOMAC Trading Basin</i>



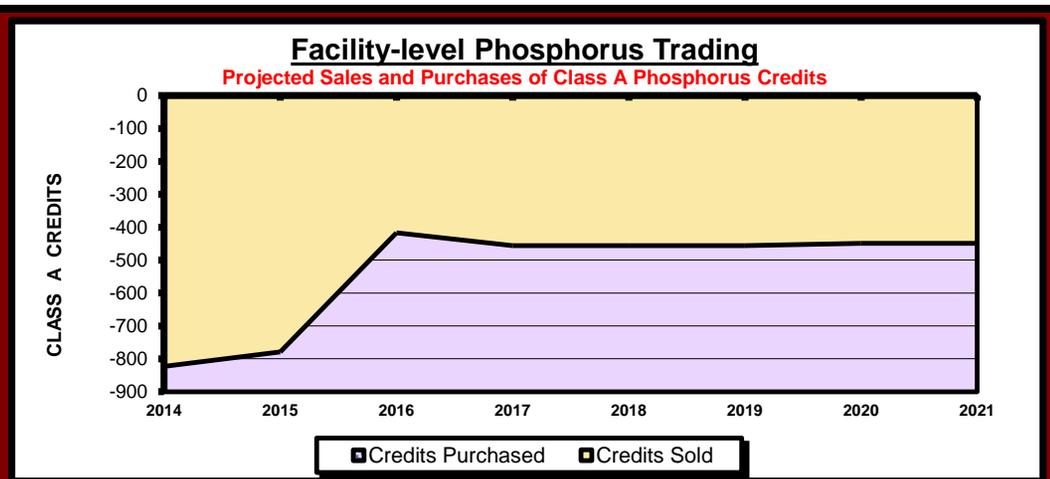
Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60
0.86	0.87	0.87	0.88	0.88	0.88	0.90	0.90
3.00	3.00	1.50	1.50	1.50	1.50	1.60	1.60
7,858	7,949	3,974	4,020	4,020	4,020	4,386	4,386
0.44	0.44	0.42	0.42	0.42	0.42	0.42	0.42
3,457	3,498	1,669	1,688	1,688	1,688	1,842	1,842
8,576	8,576	8,187	8,187	8,187	8,187	8,187	8,187
5,119	5,078	6,518	6,499	6,499	6,499	6,345	6,345
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
5,119	5,078	6,518	6,499	6,499	6,499	6,345	6,345
0	4,824	6,518	6,499	6,499	6,499	6,345	6,345
5,119	254	0	0	0	0	0	0

PHOSPHORUS FACILITY SUMMARY

Luray
<i>POTOMAC Trading Basin</i>

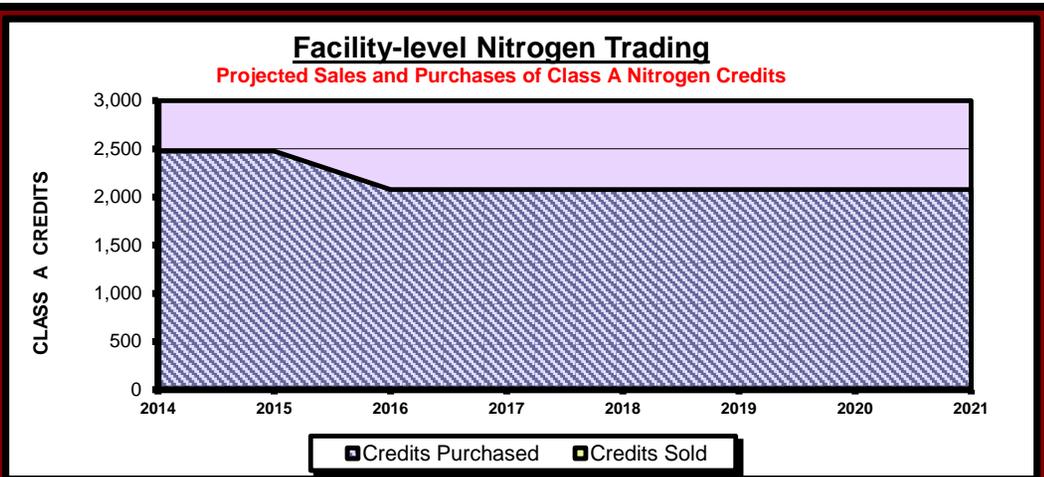


Loading & Credit Summary
Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60
0.86	0.87	0.87	0.88	0.88	0.88	0.90	0.90
0.15	0.15	0.26	0.23	0.23	0.23	0.23	0.23
393	397	689	616	616	616	630	630
0.77	0.77	0.54	0.54	0.54	0.54	0.54	0.54
303	306	372	333	333	333	340	340
1,126	1,126	789	789	789	789	789	789
823	820	417	456	456	456	449	449
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
823	820	417	456	456	456	449	449
0	41	0	0	0	0	0	0

NITROGEN FACILITY SUMMARY

Massanutten PSC
POTOMAC Trading Basin



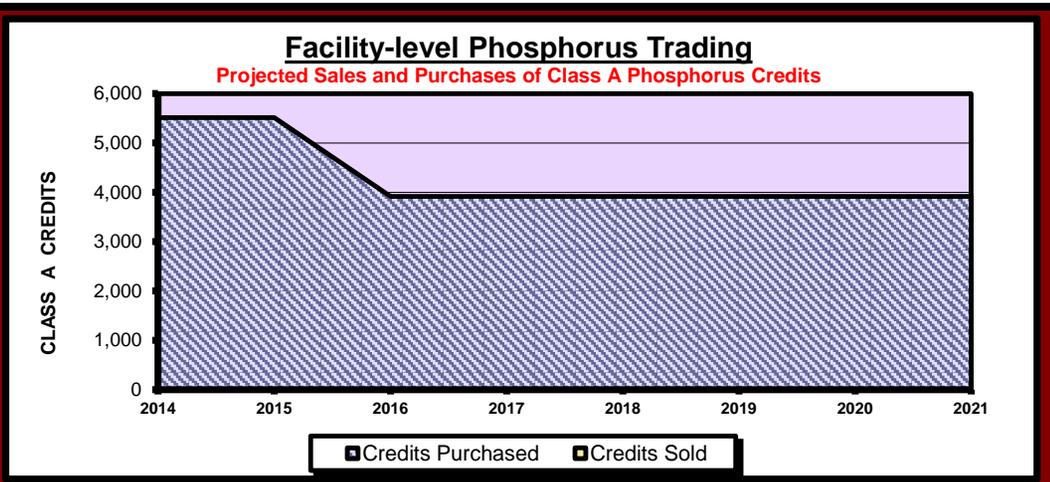
Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
0.72	0.72	0.74	0.74	0.74	0.74	0.74	0.74
10.90	10.90	10.90	10.90	10.90	10.90	10.90	10.90
23,902	23,902	24,565	24,565	24,565	24,565	24,565	24,565
0.44	0.44	0.33	0.33	0.33	0.33	0.33	0.33
10,517	10,517	8,107	8,107	8,107	8,107	8,107	8,107
8,040	8,040	6,030	6,030	6,030	6,030	6,030	6,030
(2,477)	(2,477)	(2,077)	(2,077)	(2,077)	(2,077)	(2,077)	(2,077)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
(2,477)	(2,477)	(2,077)	(2,077)	(2,077)	(2,077)	(2,077)	(2,077)
(2,477)	(2,477)	(2,077)	(2,077)	(2,077)	(2,077)	(2,077)	(2,077)
0	0	0	0	0	0	0	0

PHOSPHORUS FACILITY SUMMARY

Massanutten PSC
POTOMAC Trading Basin



Loading & Credit Summary

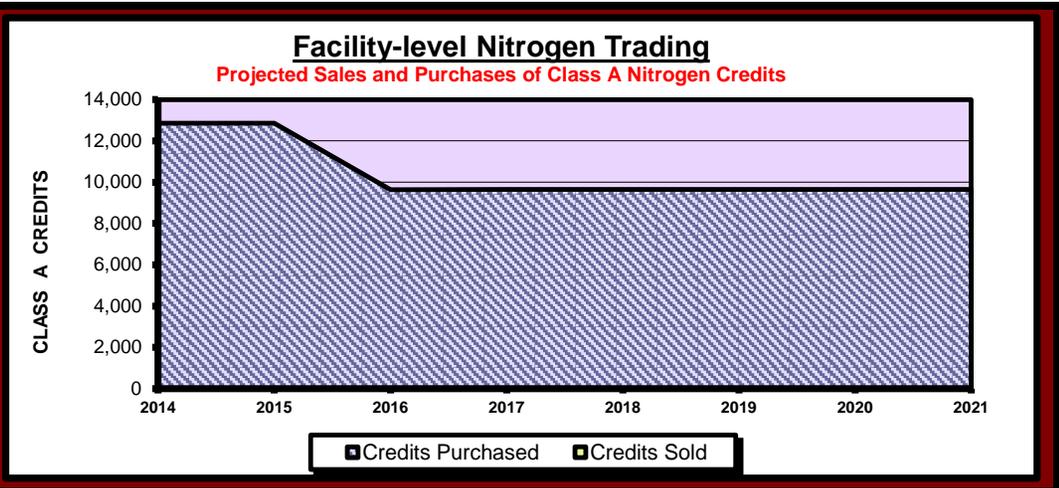
Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
0.72	0.72	0.74	0.74	0.74	0.74	0.74	0.74
3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89
8,530	8,530	8,767	8,767	8,767	8,767	8,767	8,767
0.77	0.77	0.53	0.53	0.53	0.53	0.53	0.53
6,568	6,568	4,646	4,646	4,646	4,646	4,646	4,646
1,055	1,055	727	727	727	727	727	727
(5,513)	(5,513)	(3,919)	(3,919)	(3,919)	(3,919)	(3,919)	(3,919)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
(5,513)	(5,513)	(3,919)	(3,919)	(3,919)	(3,919)	(3,919)	(3,919)
(5,513)	(5,513)	(3,919)	(3,919)	(3,919)	(3,919)	(3,919)	(3,919)
0	0	0	0	0	0	0	0

NITROGEN FACILITY SUMMARY

Merck

POTOMAC Trading Basin



Loading & Credit Summary

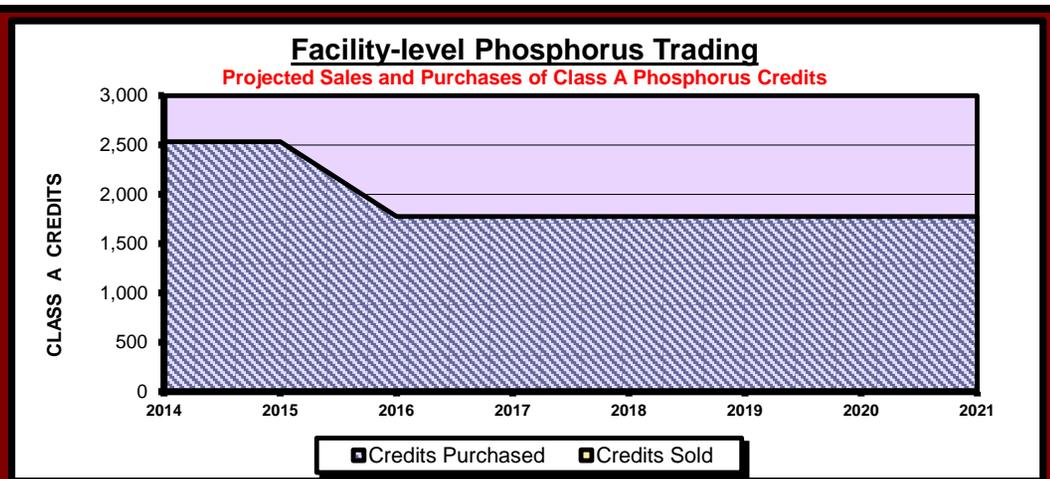
Design Flow (mgd)	1.20
Projected Flow (mgd)	1.20
Projected Avg. Annual Concentration (mg/L)	12.00
Discharged Load (end of pipe)	43,856
Delivery Factor	0.44
Expected Load	19,297
Delivered WLA	6,432
Expected Credits (delivered)	(12,865)
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	(12,865)
Class A Credit Sales (Purchases)	(12,865)
Expected Class B Credits	0

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20
1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20
12.00	12.00	11.99	12.00	12.00	12.00	12.00	12.00
43,856	43,856	43,835	43,856	43,856	43,856	43,856	43,856
0.44	0.44	0.33	0.33	0.33	0.33	0.33	0.33
19,297	19,297	14,466	14,473	14,473	14,473	14,473	14,473
6,432	6,432	4,824	4,824	4,824	4,824	4,824	4,824
(12,865)	(12,865)	(9,642)	(9,649)	(9,649)	(9,649)	(9,649)	(9,649)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
(12,865)	(12,865)	(9,642)	(9,649)	(9,649)	(9,649)	(9,649)	(9,649)
(12,865)	(12,865)	(9,642)	(9,649)	(9,649)	(9,649)	(9,649)	(9,649)
0	0	0	0	0	0	0	0

PHOSPHORUS FACILITY SUMMARY

Merck

POTOMAC Trading Basin



Loading & Credit Summary

Design Flow (mgd)	1.20
Projected Flow (mgd)	1.20
Projected Avg. Annual Concentration (mg/L)	1.20
Discharged Load (end of pipe)	4,386
Delivery Factor	0.77
Expected Load	3,377
Delivered WLA	844
Expected Credits (delivered)	(2,533)
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	(2,533)
Class A Credit Sales (Purchases)	(2,533)
Expected Class B Credits	0

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20
1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20
1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20
4,386	4,386	4,384	4,386	4,386	4,386	4,386	4,386
0.77	0.77	0.54	0.54	0.54	0.54	0.54	0.54
3,377	3,377	2,367	2,368	2,368	2,368	2,368	2,368
844	844	592	592	592	592	592	592
(2,533)	(2,533)	(1,775)	(1,776)	(1,776)	(1,776)	(1,776)	(1,776)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
(2,533)	(2,533)	(1,775)	(1,776)	(1,776)	(1,776)	(1,776)	(1,776)
(2,533)	(2,533)	(1,775)	(1,776)	(1,776)	(1,776)	(1,776)	(1,776)
0	0	0	0	0	0	0	0

Merck – Additional Information

Description of Merck-Stonewall WQMP Regulation Note (10) as it Applies to the Exchange Compliance Plan:

Under the Water Quality Management Planning Regulation (9VAC 25-720-50.C) and Watershed General Permit Registration List for the Potomac/Shenandoah River Basin, the Merck-Stonewall facility's WLAs are as follows:

Discharged TN WLA: 43,835 lbs/yr

Discharged TP WLA: 4,384 lbs/yr

The Discharged WLAs stated above are subject to the following conditions in the Water Quality Management Planning Regulation (9VAC 25-720-50.C):

(10) Merck-Stonewall – (a) these waste load allocations will be subject to further consideration, consistent with the Chesapeake Bay TMDL, as it may be amended, and possible reduction upon "full-scale" results showing the optimal treatment capability of the 4-stage Bardenpho technology at this facility consistent with the level of effort by other dischargers in the region. The "full scale" evaluation will be completed by December 31, 2011, and the results submitted to DEQ for review and subsequent board action; (b) in any year when credits are available after all other exchanges within the Shenandoah-Potomac River Basin are completed in accordance with § 62.1-44.19:18 of the Code of Virginia, Merck shall acquire credits for total nitrogen discharged in excess of 14,619 lbs/yr and total phosphorus discharged in excess of 1,096 lbs/yr; and (c) the allocations are not transferable and compliance credits are only generated if discharged loads are less than the loads identified in clause (b).

Note that the WLAs stated in Note (10) are expressed as Discharged WLAs. Consistent with Note (10) clauses (b) and (c), the Watershed General Permit and manner in which the Exchange Trading Model is designed, this Exchange Compliance Plan is prepared and presented based on the following Delivered WLAs derived using the applicable Delivery Factors ("DF"):

Delivered TN WLA: 6,432 lbs/yr (0.44 DF for Compliance Years 2012 to 2015)

Delivered TN WLA: 4,824 lbs/yr (0.33 DF for Compliance Year 2016 and beyond)

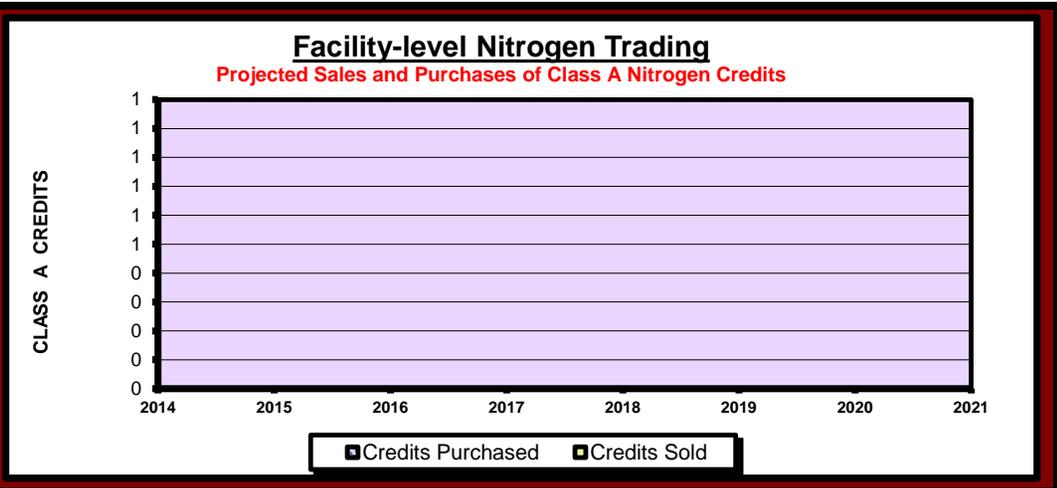
Delivered TP WLA: 844 lbs/yr (0.77 DF for Compliance Years 2012 to 2015)

Delivered TP WLA: 592 lbs/yr (0.54 DF for Compliance Year 2016 and beyond)

This description neither creates nor implies any limitation on Merck's use of its full WLAs in the manner authorized under Note (10).

NITROGEN FACILITY SUMMARY

MillerCoors LLC
POTOMAC Trading Basin



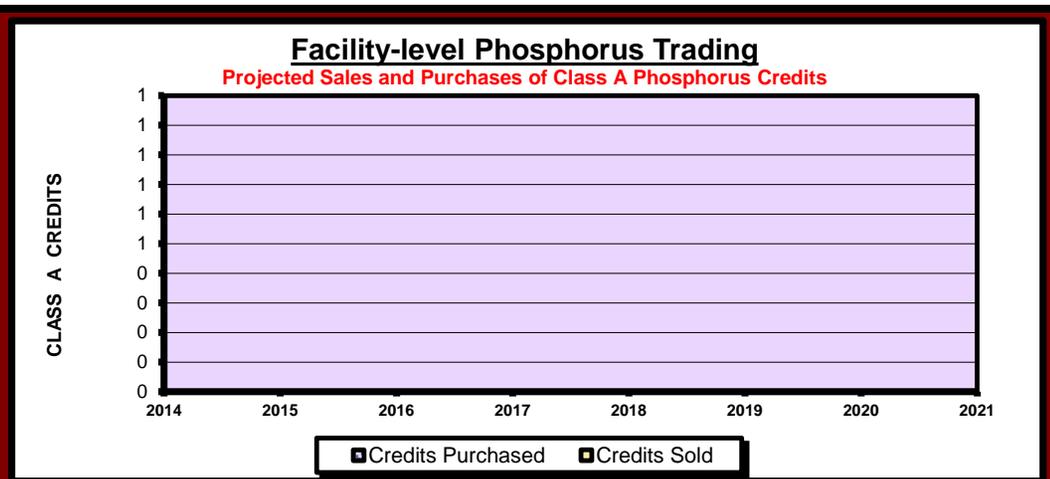
Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
54,820	54,820	54,820	54,820	54,820	54,820	54,820	54,820
0.44	0.44	0.33	0.33	0.33	0.33	0.33	0.33
24,121	24,121	18,091	18,091	18,091	18,091	18,091	18,091
24,121	24,121	18,091	18,091	18,091	18,091	18,091	18,091
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

PHOSPHORUS FACILITY SUMMARY

MillerCoors LLC
POTOMAC Trading Basin



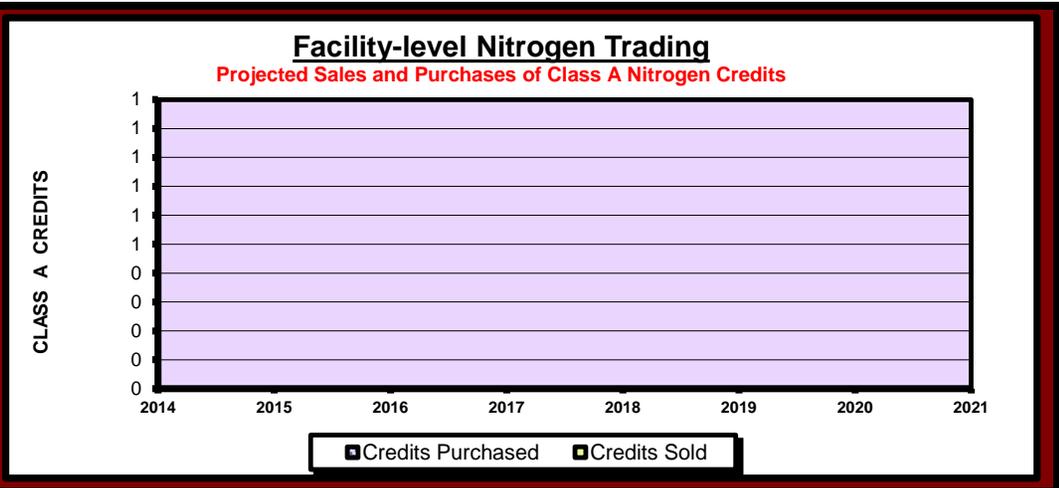
Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
4,112	4,112	4,112	4,112	4,112	4,112	4,112	4,112
0.77	0.77	0.54	0.54	0.54	0.54	0.54	0.54
3,166	3,166	2,220	2,220	2,220	2,220	2,220	2,220
3,166	3,166	2,220	2,220	2,220	2,220	2,220	2,220
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

NITROGEN FACILITY SUMMARY

Mt. Jackson
POTOMAC Trading Basin

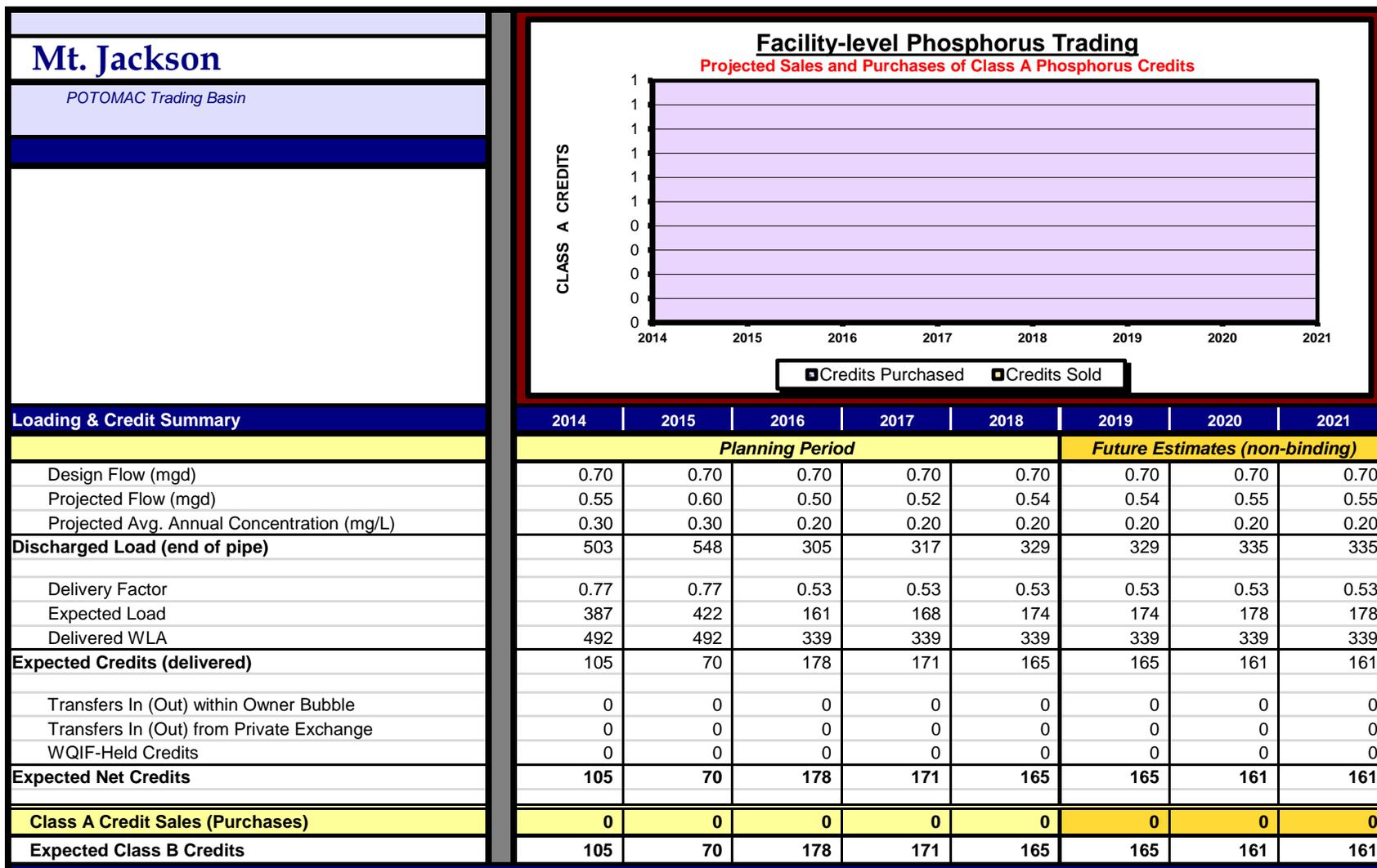


Loading & Credit Summary

Design Flow (mgd)	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Projected Flow (mgd)	0.55	0.60	0.50	0.52	0.54	0.54	0.55	0.55
Projected Avg. Annual Concentration (mg/L)	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Discharged Load (end of pipe)	6,700	7,309	6,091	6,335	6,578	6,578	6,700	6,700
Delivery Factor	0.67	0.67	0.34	0.34	0.34	0.34	0.34	0.34
Expected Load	4,489	4,897	2,071	2,154	2,237	2,237	2,278	2,278
Delivered WLA	5,713	5,713	2,900	2,900	2,900	2,900	2,900	2,900
Expected Credits (delivered)	1,224	816	829	746	663	663	622	622
Transfers In (Out) within Owner Bubble	0	0	0	0	0	0	0	0
Transfers In (Out) from Private Exchange	0	0	0	0	0	0	0	0
WQIF-Held Credits	0	0	0	0	0	0	0	0
Expected Net Credits	1,224	816	829	746	663	663	622	622
Class A Credit Sales (Purchases)	0	0	0	0	0	0	0	0
Expected Class B Credits	1,224	816	829	746	663	663	622	622

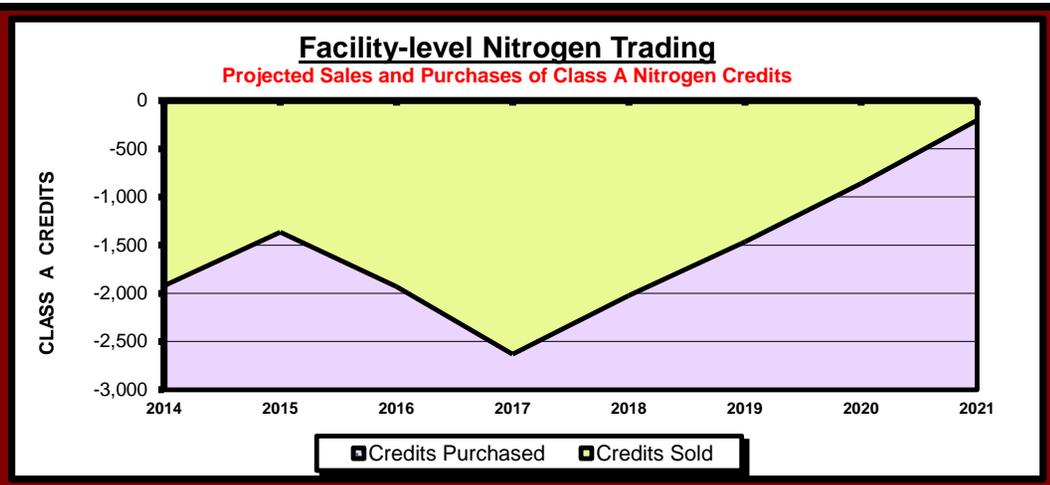
2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
0.55	0.60	0.50	0.52	0.54	0.54	0.55	0.55
4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
6,700	7,309	6,091	6,335	6,578	6,578	6,700	6,700
0.67	0.67	0.34	0.34	0.34	0.34	0.34	0.34
4,489	4,897	2,071	2,154	2,237	2,237	2,278	2,278
5,713	5,713	2,900	2,900	2,900	2,900	2,900	2,900
1,224	816	829	746	663	663	622	622
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
1,224	816	829	746	663	663	622	622
0	0	0	0	0	0	0	0
1,224	816	829	746	663	663	622	622

PHOSPHORUS FACILITY SUMMARY



NITROGEN FACILITY SUMMARY

Purcellville
<i>POTOMAC Trading Basin</i>

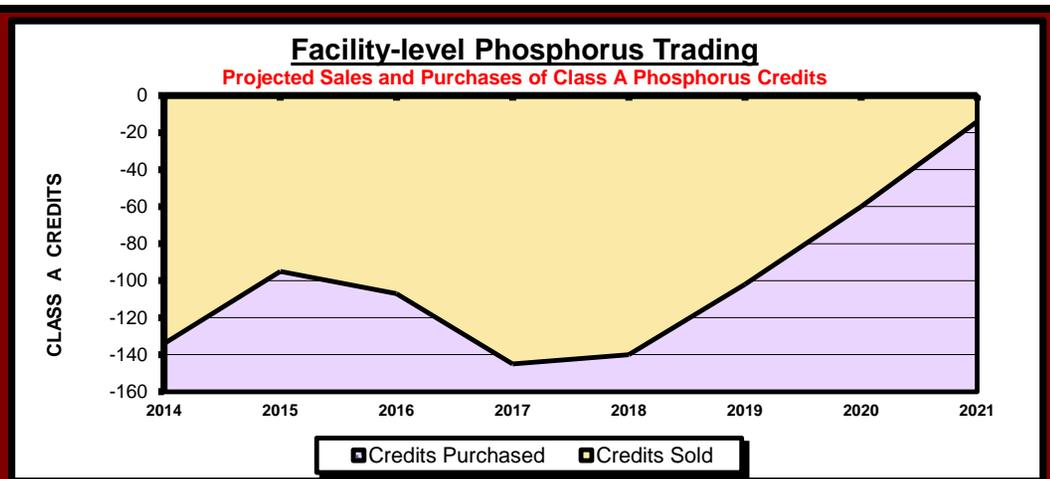


Loading & Credit Summary
Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.12	1.23	1.06	0.90	1.10	1.21	1.33	1.46
4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
13,644	14,984	12,913	10,964	13,400	14,741	16,202	17,786
0.83	0.83	0.72	0.72	0.72	0.72	0.72	0.72
11,325	12,437	9,297	7,894	9,648	10,613	11,666	12,806
15,167	15,167	13,157	13,157	13,157	13,157	13,157	13,157
3,842	2,730	3,860	5,263	3,509	2,544	1,491	351
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
3,842	2,730	3,860	5,263	3,509	2,544	1,491	351
1,921	1,365	1,930	2,632	2,023	1,466	860	203
1,921	1,365	1,930	2,632	1,486	1,078	631	148

PHOSPHORUS FACILITY SUMMARY

Purcellville
<i>POTOMAC Trading Basin</i>

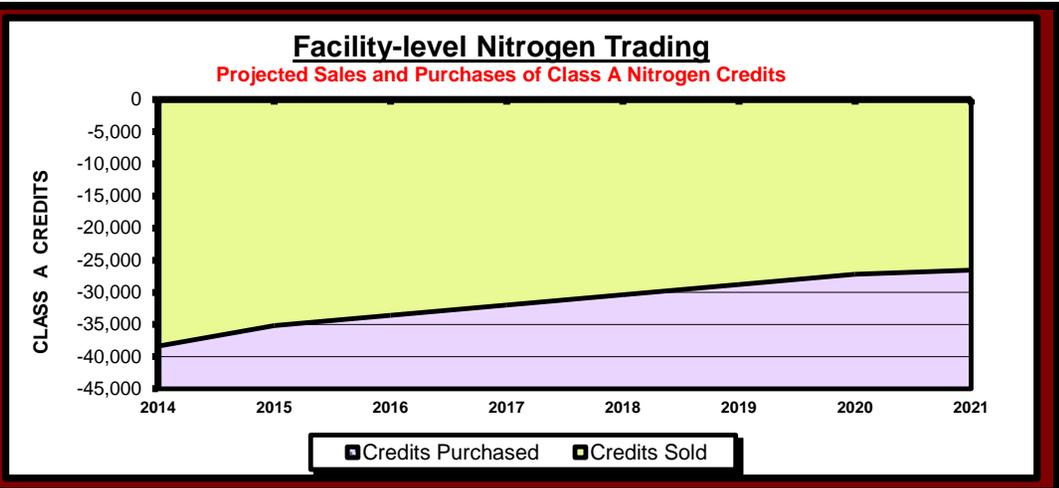


Loading & Credit Summary	
Design Flow (mgd)	1.50
Projected Flow (mgd)	1.12
Projected Avg. Annual Concentration (mg/L)	0.30
Discharged Load (end of pipe)	1,023
Delivery Factor	0.77
Expected Load	788
Delivered WLA	1,056
Expected Credits (delivered)	268
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	268
Class A Credit Sales (Purchases)	134
Expected Class B Credits	134

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.12	1.23	1.06	0.90	1.10	1.21	1.33	1.46
0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
1,023	1,124	968	822	1,005	1,106	1,215	1,334
0.77	0.77	0.53	0.53	0.53	0.53	0.53	0.53
788	865	513	436	533	586	644	707
1,056	1,056	727	727	727	727	727	727
268	191	214	291	194	141	83	20
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
268	191	214	291	194	141	83	20
134	95	107	145	140	102	60	14
134	96	107	146	54	39	23	6

NITROGEN FACILITY SUMMARY

PWCSA-HL Mooney
POTOMAC Trading Basin



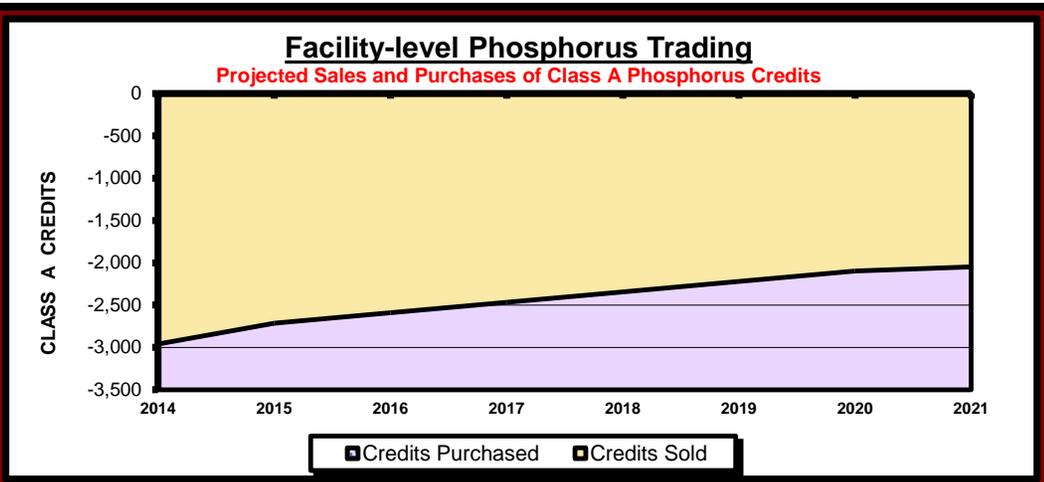
Loading & Credit Summary

Design Flow (mgd)	24.00
Projected Flow (mgd)	18.00
Projected Avg. Annual Concentration (mg/L)	3.00
Discharged Load (end of pipe)	164,460
Delivery Factor	1.00
Expected Load	164,460
Delivered WLA	219,280
Expected Credits (delivered)	54,820
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	54,820
Class A Credit Sales (Purchases)	38,374
Expected Class B Credits	16,446

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00
18.00	18.50	18.75	19.00	19.25	19.50	19.75	19.85
3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
164,460	169,029	171,313	173,597	175,881	178,165	180,449	181,363
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
164,460	169,029	171,313	173,597	175,881	178,165	180,449	181,363
219,280	219,280	219,280	219,280	219,280	219,280	219,280	219,280
54,820	50,251	47,967	45,683	43,399	41,115	38,831	37,917
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
54,820	50,251	47,967	45,683	43,399	41,115	38,831	37,917
38,374	35,176	33,577	31,978	30,379	28,781	27,182	26,542
16,446	15,075	14,390	13,705	13,020	12,334	11,649	11,375

PHOSPHORUS FACILITY SUMMARY

PWCSA-HL Mooney
POTOMAC Trading Basin



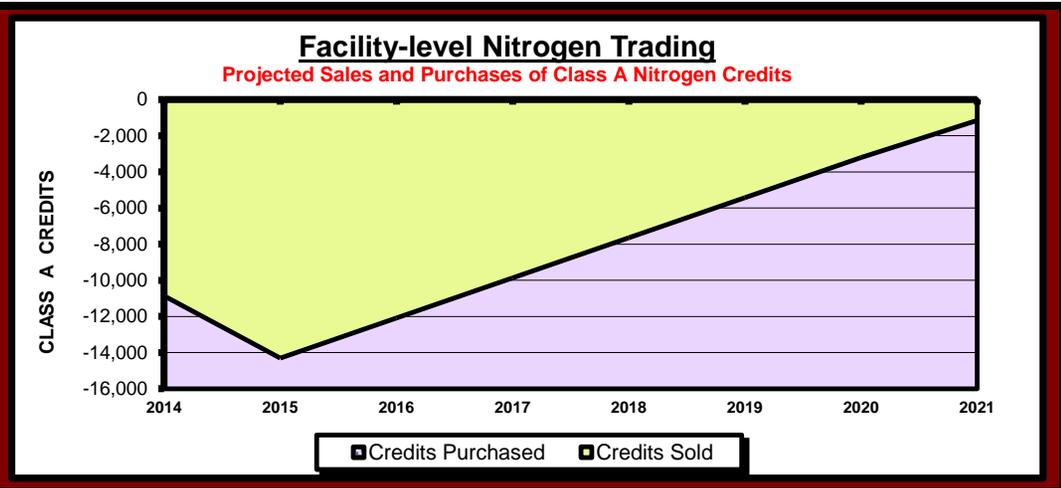
Loading & Credit Summary

Design Flow (mgd)	24.00
Projected Flow (mgd)	18.00
Projected Avg. Annual Concentration (mg/L)	0.18
Discharged Load (end of pipe)	9,868
Delivery Factor	1.00
Expected Load	9,868
Delivered WLA	13,157
Expected Credits (delivered)	3,289
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	3,289
Class A Credit Sales (Purchases)	2,960
Expected Class B Credits	329

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00
18.00	18.50	18.75	19.00	19.25	19.50	19.75	19.85
0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
9,868	10,142	10,279	10,416	10,553	10,690	10,827	10,882
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
9,868	10,142	10,279	10,416	10,553	10,690	10,827	10,882
13,157	13,157	13,157	13,157	13,157	13,157	13,157	13,157
3,289	3,015	2,878	2,741	2,604	2,467	2,330	2,275
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
3,289	3,015	2,878	2,741	2,604	2,467	2,330	2,275
2,960	2,714	2,590	2,467	2,344	2,220	2,097	2,048
329	301	288	274	260	247	233	227

NITROGEN FACILITY SUMMARY

Stafford Co-Aquia
<i>POTOMAC Trading Basin</i>

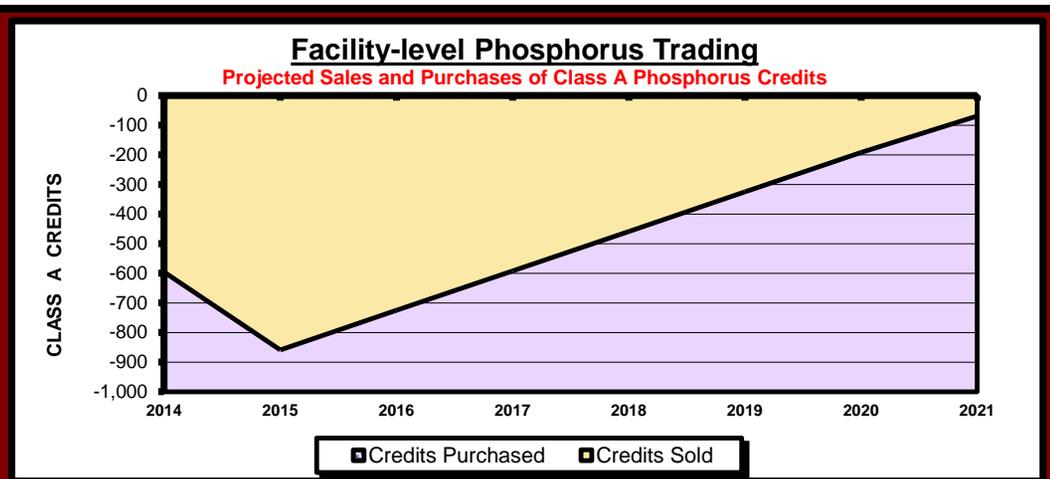


Loading & Credit Summary	
Design Flow (mgd)	
Projected Flow (mgd)	
Projected Avg. Annual Concentration (mg/L)	
Discharged Load (end of pipe)	
Delivery Factor	
Expected Load	
Delivered WLA	
Expected Credits (delivered)	
Transfers In (Out) within Owner Bubble	
Transfers In (Out) from Private Exchange	
WQIF-Held Credits	
Expected Net Credits	
Class A Credit Sales (Purchases)	
Expected Class B Credits	

2014	2015	2016	2017	2018	2019	2020	2021
<i>Planning Period</i>					<i>Future Estimates (non-binding)</i>		
8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
5.99	6.26	6.53	6.80	7.07	7.34	7.61	7.86
3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
54,729	57,196	59,663	62,129	64,596	67,063	69,530	71,814
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
54,729	57,196	59,663	62,129	64,596	67,063	69,530	71,814
73,093	73,093	73,093	73,093	73,093	73,093	73,093	73,093
18,364	15,897	13,430	10,964	8,497	6,030	3,563	1,279
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
18,364	15,897	13,430	10,964	8,497	6,030	3,563	1,279
10,863	14,307	12,087	9,868	7,647	5,427	3,206	1,151
7,501	1,590	1,343	1,096	850	603	357	128

PHOSPHORUS FACILITY SUMMARY

Stafford Co-Aquia
POTOMAC Trading Basin



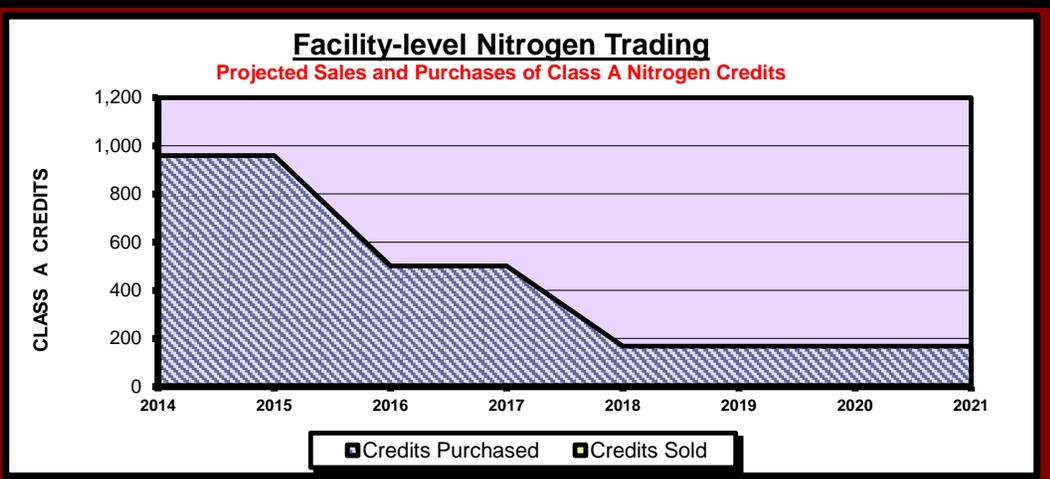
Loading & Credit Summary

Design Flow (mgd)	8.00
Projected Flow (mgd)	5.99
Projected Avg. Annual Concentration (mg/L)	0.18
Discharged Load (end of pipe)	3,284
Delivery Factor	1.00
Expected Load	3,284
Delivered WLA	4,386
Expected Credits (delivered)	1,102
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	1,102
Class A Credit Sales (Purchases)	596
Expected Class B Credits	506

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
5.99	6.26	6.53	6.80	7.07	7.34	7.61	7.86
0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
3,284	3,432	3,580	3,728	3,876	4,024	4,172	4,309
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
3,284	3,432	3,580	3,728	3,876	4,024	4,172	4,309
4,386	4,386	4,386	4,386	4,386	4,386	4,386	4,386
1,102	954	806	658	510	362	214	77
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
1,102	954	806	658	510	362	214	77
596	859	725	592	459	325	192	69
506	95	81	66	51	37	22	8

NITROGEN FACILITY SUMMARY

Stoney Creek
 POTOMAC Trading Basin



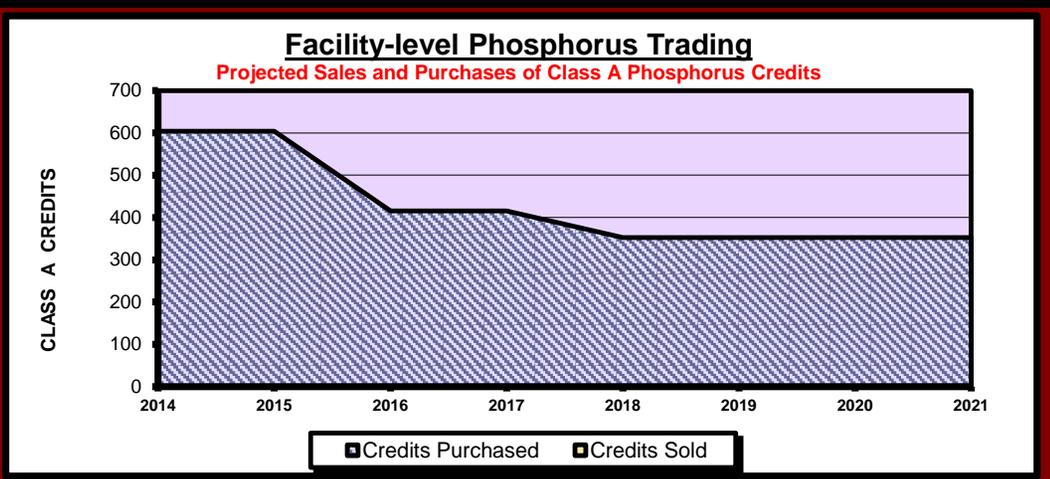
Loading & Credit Summary	
Design Flow (mgd)	0.60
Projected Flow (mgd)	0.35
Projected Avg. Annual Concentration (mg/L)	8.20
Discharged Load (end of pipe)	8,741
Delivery Factor	0.67
Expected Load	5,856
Delivered WLA*	5,188
Expected Credits (delivered)	(668)
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	(668)
Class A Credit Sales (Purchases)	(959)
Expected Class B Credits	291

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
8.20	8.20	8.20	8.20	8.20	8.20	8.20	8.20
8,741	8,741	8,741	8,741	8,741	8,741	8,741	8,741
0.67	0.67	0.35	0.35	0.35	0.35	0.35	0.35
5,856	5,856	3,059	3,059	3,059	3,059	3,059	3,059
5,188	5,188	2,710	2,710	2,891	2,891	2,891	2,891
(668)	(668)	(349)	(349)	(168)	(168)	(168)	(168)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
(668)	(668)	(349)	(349)	(168)	(168)	(168)	(168)
(959)	(959)	(501)	(501)	(168)	(168)	(168)	(168)
291	291	152	152	0	0	0	0

* Reflects allocation transfer to RSW Regional Jail WWTP of 515 discharged pounds of TN through 2017

PHOSPHORUS FACILITY SUMMARY

Stoney Creek
POTOMAC Trading Basin



Loading & Credit Summary

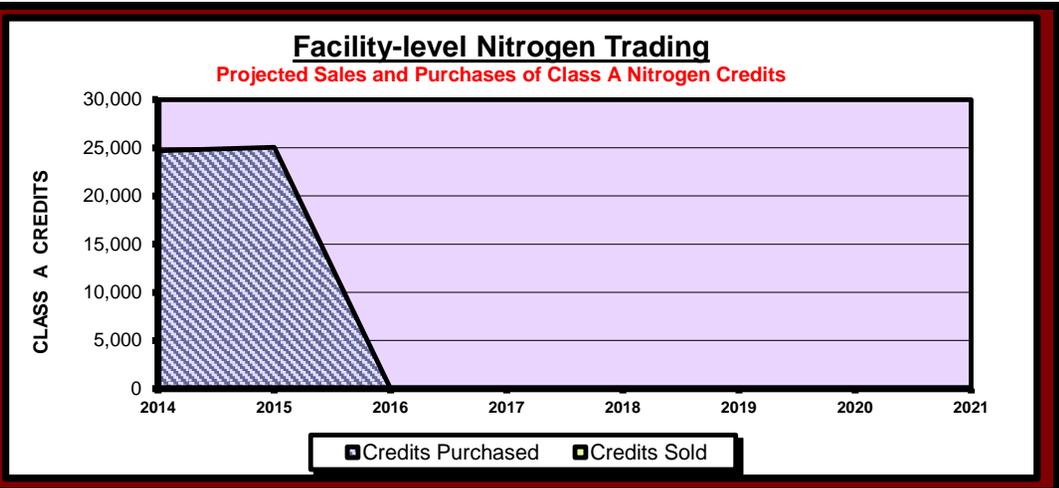
Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA*
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
1,332	1,332	1,332	1,332	1,332	1,332	1,332	1,332
0.77	0.77	0.53	0.53	0.53	0.53	0.53	0.53
1,026	1,026	706	706	706	706	706	706
473	473	325	325	353	353	353	353
(553)	(553)	(381)	(381)	(353)	(353)	(353)	(353)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
(553)	(553)	(381)	(381)	(353)	(353)	(353)	(353)
(604)	(604)	(416)	(416)	(353)	(353)	(353)	(353)
51	51	35	35	0	0	0	0

* Reflects allocation transfer to RSW Regional Jail WWTP of 53 discharged pounds of TP through 2017

NITROGEN FACILITY SUMMARY

Strasburg
<i>POTOMAC Trading Basin</i>



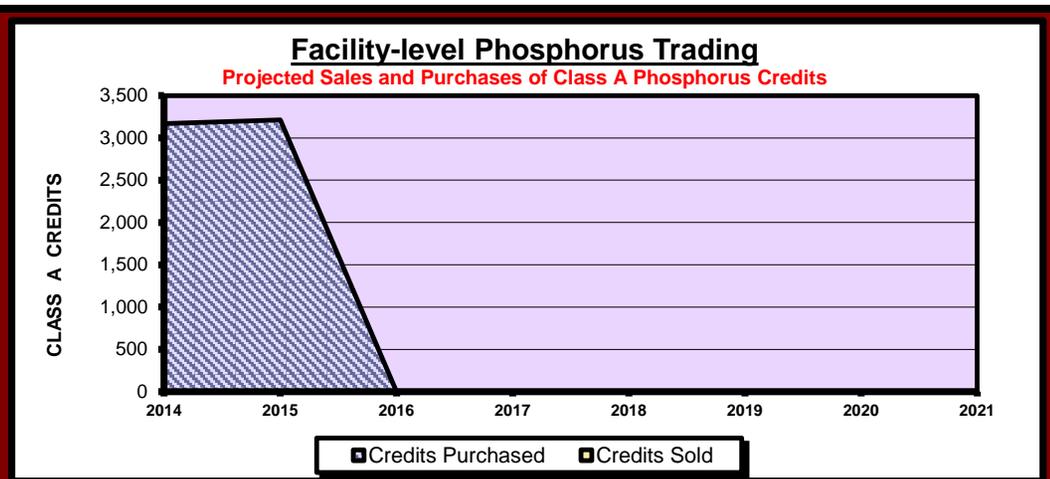
Loading & Credit Summary

Design Flow (mgd)	
Projected Flow (mgd)	
Projected Avg. Annual Concentration (mg/L)	
Discharged Load (end of pipe)	
Delivery Factor	
Expected Load	
Delivered WLA	
Expected Credits (delivered)	
Transfers In (Out) within Owner Bubble	
Transfers In (Out) from Private Exchange	
WQIF-Held Credits	
Expected Net Credits	
Class A Credit Sales (Purchases)	
Expected Class B Credits	

2014	2015	2016	2017	2018	2019	2020	2021
<i>Planning Period</i>					<i>Future Estimates (non-binding)</i>		
0.98	0.98	2.00	2.00	2.00	2.00	2.00	2.00
0.88	0.89	0.90	0.91	0.92	0.93	0.94	0.95
18.21	18.21	3.00	3.00	3.00	3.00	3.00	3.00
48,804	49,359	8,223	8,314	8,406	8,497	8,588	8,680
0.67	0.67	0.43	0.43	0.43	0.43	0.43	0.43
32,699	33,071	3,536	3,575	3,614	3,654	3,693	3,732
7,999	7,999	5,134	5,134	5,134	5,134	5,134	5,134
(24,700)	(25,072)	1,598	1,559	1,520	1,480	1,441	1,402
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
(24,700)	(25,072)	1,598	1,559	1,520	1,480	1,441	1,402
(24,700)	(25,072)	0	0	0	0	0	0
0	0	1,598	1,559	1,520	1,480	1,441	1,402

PHOSPHORUS FACILITY SUMMARY

Strasburg
<i>POTOMAC Trading Basin</i>

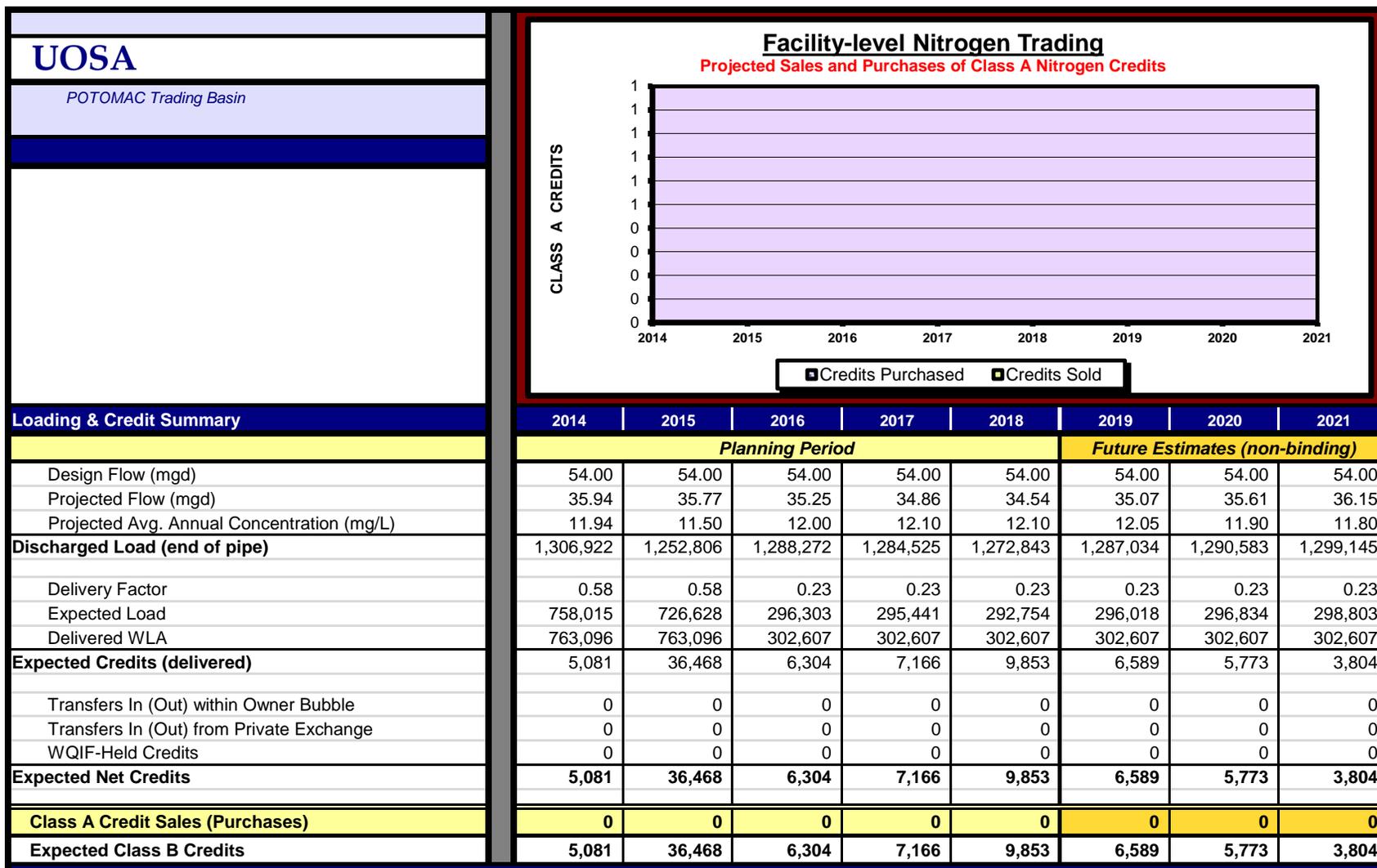


Loading & Credit Summary

Design Flow (mgd)	
Design Flow (mgd)	0.98
Projected Flow (mgd)	0.88
Projected Avg. Annual Concentration (mg/L)	1.87
Discharged Load (end of pipe)	
Discharged Load (end of pipe)	5,012
Delivery Factor	0.77
Expected Load	3,859
Delivered WLA	689
Expected Credits (delivered)	
Expected Credits (delivered)	(3,170)
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	
Expected Net Credits	(3,170)
Class A Credit Sales (Purchases)	
Class A Credit Sales (Purchases)	(3,170)
Expected Class B Credits	
Expected Class B Credits	0

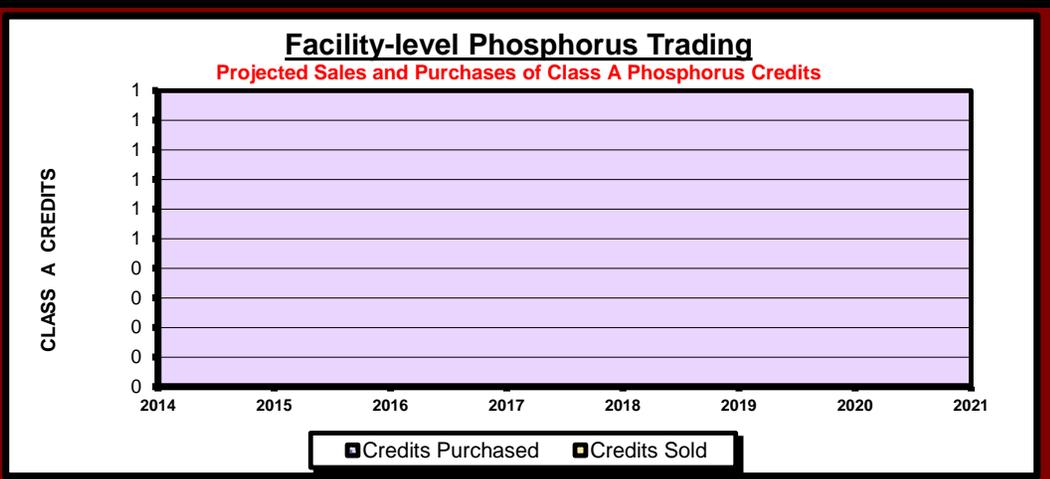
2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.98	0.98	2.00	2.00	2.00	2.00	2.00	2.00
0.88	0.89	0.90	0.91	0.92	0.93	0.94	0.95
1.87	1.87	0.30	0.30	0.30	0.30	0.30	0.30
5,012	5,069	822	831	841	850	859	868
0.77	0.77	0.53	0.53	0.53	0.53	0.53	0.53
3,859	3,903	436	441	446	450	455	460
689	689	474	474	474	474	474	474
(3,170)	(3,214)	38	33	28	24	19	14
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
(3,170)	(3,214)	38	33	28	24	19	14
(3,170)	(3,214)	0	0	0	0	0	0
0	0	38	33	28	24	19	14

NITROGEN FACILITY SUMMARY



PHOSPHORUS FACILITY SUMMARY

UOSA
POTOMAC Trading Basin

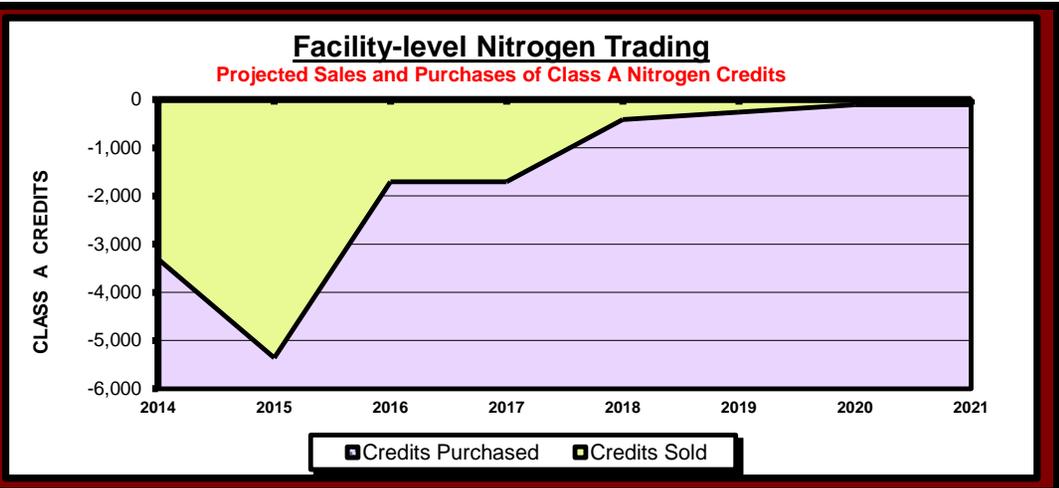


Loading & Credit Summary	
Design Flow (mgd)	
Projected Flow (mgd)	
Projected Avg. Annual Concentration (mg/L)	
Discharged Load (end of pipe)	
Delivery Factor	
Expected Load	
Delivered WLA	
Expected Credits (delivered)	
Transfers In (Out) within Owner Bubble	
Transfers In (Out) from Private Exchange	
WQIF-Held Credits	
Expected Net Credits	
Class A Credit Sales (Purchases)	
Expected Class B Credits	

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
54.00	54.00	54.00	54.00	54.00	54.00	54.00	54.00
35.94	35.77	35.25	34.86	34.54	35.07	35.61	36.15
0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
10,946	10,894	10,736	10,616	10,519	10,681	10,845	11,010
0.44	0.44	0.30	0.30	0.30	0.30	0.30	0.30
4,816	4,793	3,221	3,185	3,156	3,204	3,254	3,303
7,236	7,236	4,934	4,934	4,934	4,934	4,934	4,934
2,420	2,443	1,713	1,749	1,778	1,730	1,680	1,631
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
2,420	2,443	1,713	1,749	1,778	1,730	1,680	1,631
0	0	0	0	0	0	0	0
2,420	2,443	1,713	1,749	1,778	1,730	1,680	1,631

NITROGEN FACILITY SUMMARY

Waynesboro
 POTOMAC Trading Basin



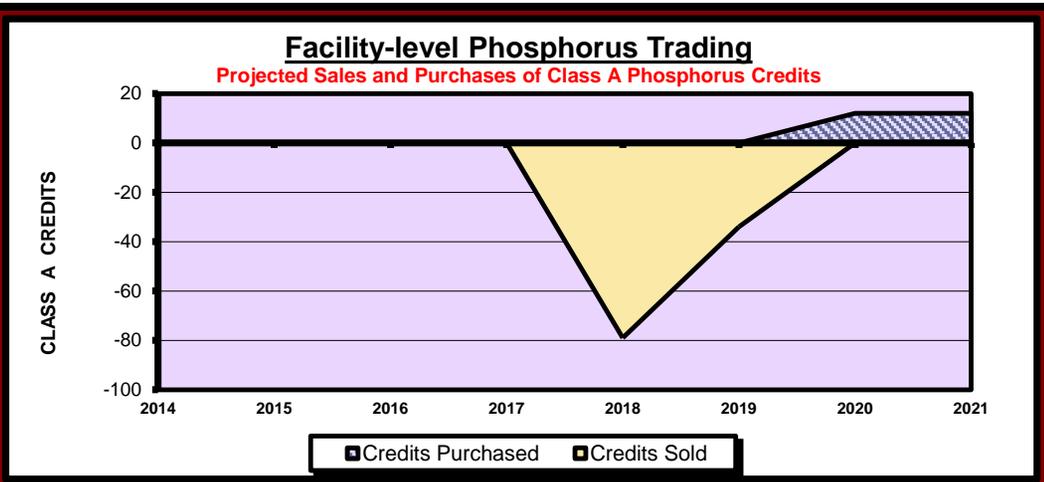
Loading & Credit Summary

Design Flow (mgd)	6.00
Projected Flow (mgd)	3.51
Projected Avg. Annual Concentration (mg/L)	3.00
Discharged Load (end of pipe)	32,070
Delivery Factor	0.44
Expected Load	14,111
Delivered WLA	21,441
Expected Credits (delivered)	7,330
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	7,330
Class A Credit Sales (Purchases)	3,310
Expected Class B Credits	4,020

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
3.51	4.00	4.00	4.00	5.01	5.13	5.25	5.25
3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
32,070	36,547	36,547	36,547	45,775	46,871	47,968	47,968
0.44	0.44	0.14	0.14	0.14	0.14	0.14	0.14
14,111	16,081	5,117	5,117	6,408	6,562	6,715	6,715
21,441	21,441	6,822	6,822	6,822	6,822	6,822	6,822
7,330	5,360	1,705	1,705	414	260	107	107
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
7,330	5,360	1,705	1,705	414	260	107	107
3,310	5,360	1,705	1,705	414	260	107	107
4,020	0	0	0	0	0	0	0

PHOSPHORUS FACILITY SUMMARY

Waynesboro
 POTOMAC Trading Basin



Loading & Credit Summary

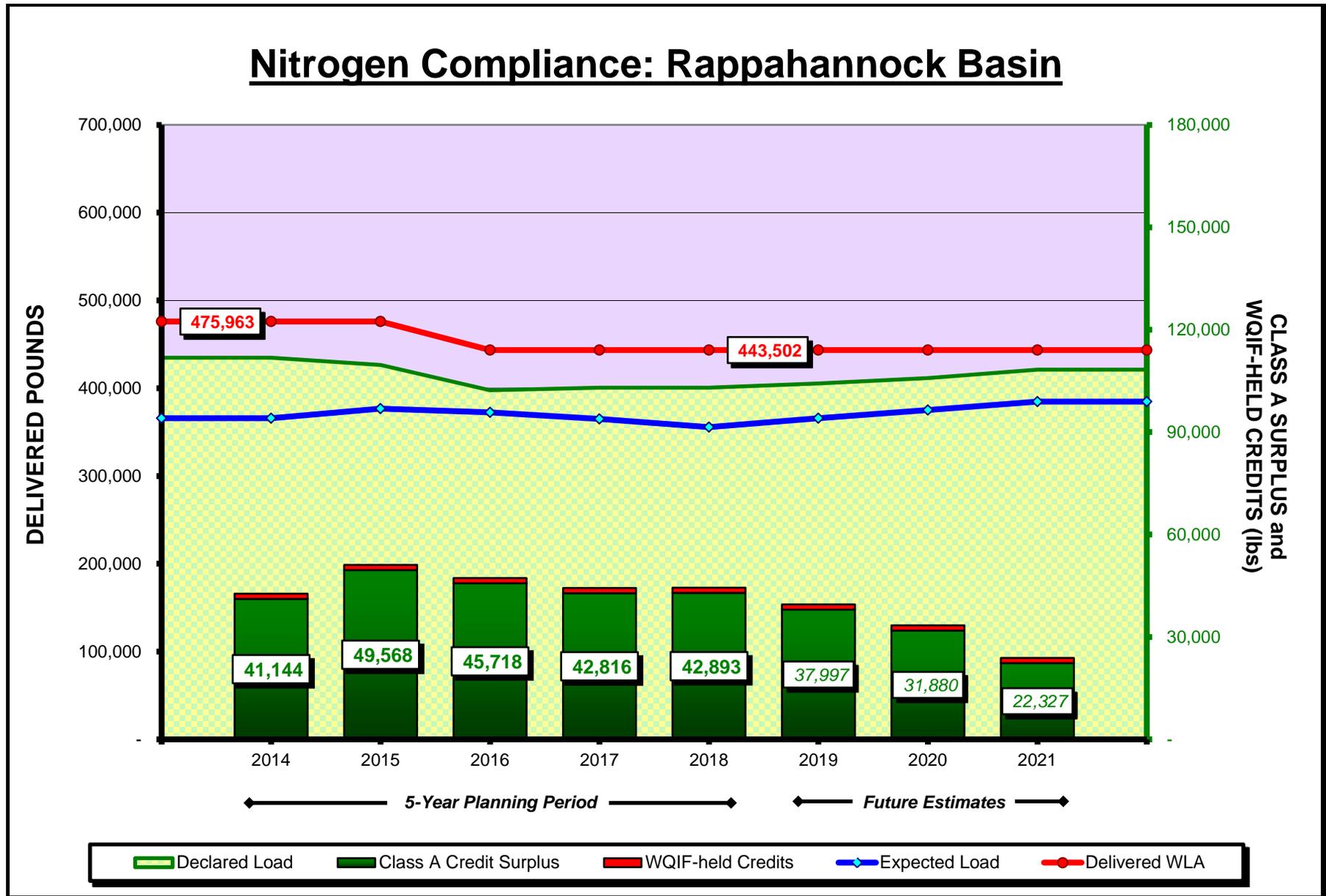
Design Flow (mgd)	6.00
Projected Flow (mgd)	3.51
Projected Avg. Annual Concentration (mg/L)	0.30
Discharged Load (end of pipe)	3,207
Delivery Factor	0.77
Expected Load	2,469
Delivered WLA	2,814
Expected Credits (delivered)	345
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	345
Class A Credit Sales (Purchases)	0
Expected Class B Credits	345

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
3.51	4.00	4.00	4.00	5.01	5.13	5.25	5.25
0.30	0.30	0.30	0.30	0.23	0.23	0.23	0.23
3,207	3,655	3,655	3,655	3,509	3,593	3,678	3,678
0.77	0.77	0.54	0.54	0.54	0.54	0.54	0.54
2,469	2,814	1,974	1,974	1,895	1,940	1,986	1,986
2,814	2,814	1,974	1,974	1,974	1,974	1,974	1,974
345	0	0	0	79	34	(12)	(12)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
345	0	0	0	79	34	(12)	(12)
0	0	0	0	79	34	(12)	(12)
345	0	0	0	0	0	0	0

SECTION 3

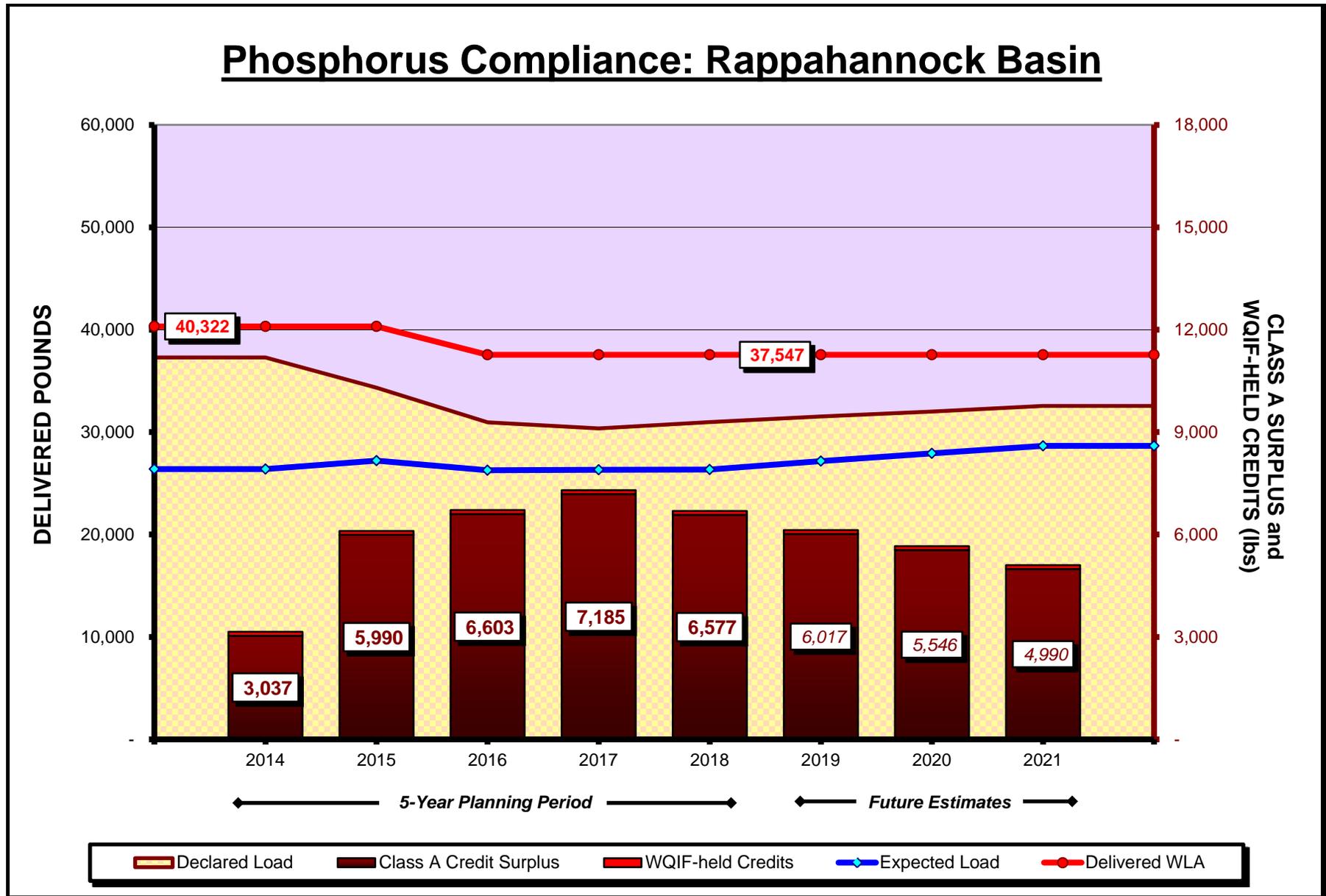
Rappahannock River Basin Exchange Compliance Plan





RAPPAHANNOCK Basin: Nitrogen Credit Ledger

Compliance Year:											
	2014	Credit Forecasts		Preliminary Use of Credits				Credit Exchange (Pounds)			
Facility Name	Delivered WLA	Expected Load	Expected Credits	In-Bubble Exchange	Private Exchange	WQIF-Held Credits	Expected Net Credits	PRICE:	Class A Sales	Class A* Purchases	Class B** (expected)
The Exchange (group)	475,963	365,690	110,273	-	-	(1,523)	108,750	\$ 0.62	\$ 2.65	\$ 0.05	55,786 (14,642) 67,606
American Water-Fort Hill	6,457	10,233	(3,776)	-	-	-	(3,776)	-	-	(3,776)	-
Culpeper (Town)	44,587	25,080	19,507	-	-	-	19,507	-	-	-	19,507
FCWSA-Marshall	4,756	4,607	149	-	-	-	149	-	-	-	149
FCWSA-Remington	14,862	7,803	7,059	-	-	-	7,059	-	-	-	7,059
Fredericksburg	54,820	58,414	(3,594)	-	-	-	(3,594)	-	-	(3,594)	-
Greene Co-Rapidan	4,459	1,941	2,518	-	-	-	2,518	1,259	-	-	1,259
HRSD-Urbanna	1,218	3,584	(2,366)	-	-	-	(2,366)	-	-	(5,176)	2,810
KGCSA-Hopyard Farms	6,091	1,827	4,264	-	-	(1,523)	2,741	-	-	-	2,741
KGCSA-Oakland Park	1,706	1,675	31	-	-	-	31	-	-	-	31
Kilmarnock	6,091	3,776	2,315	-	-	-	2,315	2,084	-	-	231
Omega Protein	21,213	10,477	10,736	-	-	-	10,736	8,589	-	-	2,147
Orange (Town)	22,293	9,289	13,004	-	-	-	13,004	3,158	-	-	9,846
Reedville S.D.	2,436	853	1,583	-	-	-	1,583	-	-	(2,096)	3,679
RSA-Wilderness Shores	9,289	4,626	4,663	-	-	-	4,663	-	-	-	4,663
Spotsy Co-FMC	48,737	71,632	(22,895)	22,895	-	-	-	-	-	-	-
Spotsy Co-Massaponax	114,505	81,743	32,762	(22,895)	-	-	9,867	4,934	-	-	4,933
Stafford Co-L. Falls Run	97,458	57,409	40,049	-	-	-	40,049	35,762	-	-	4,287
Tappahannock	9,746	7,066	2,680	-	-	-	2,680	-	-	-	2,680
Warsaw	3,655	2,924	731	-	-	-	731	-	-	-	731
Westmoreland Co-Montross	1,584	731	853	-	-	-	853	-	-	-	853
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
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-	-	-									



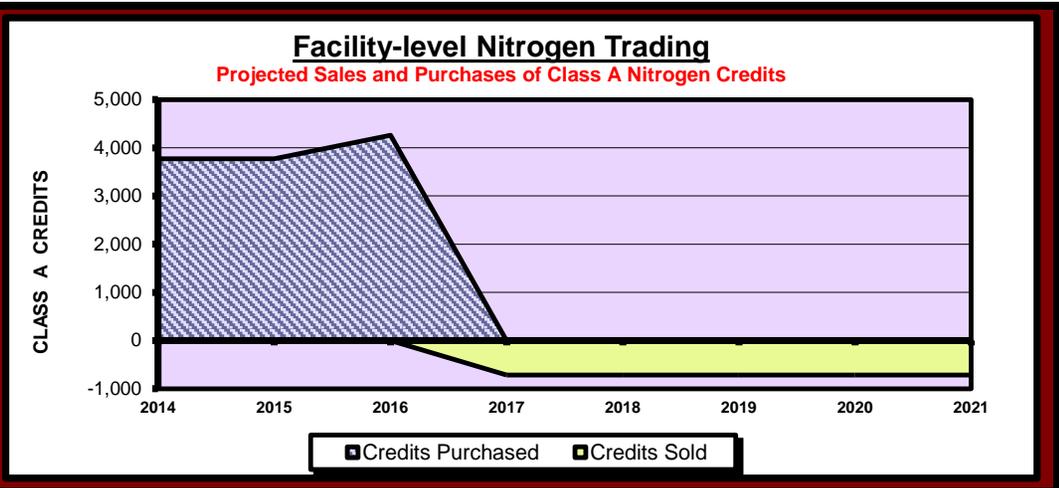
Rappahannock River Basin

Supplemental Information for Individual Facilities



NITROGEN FACILITY SUMMARY

American Water-Fort Hill
RAPPAHANNOCK Trading Basin



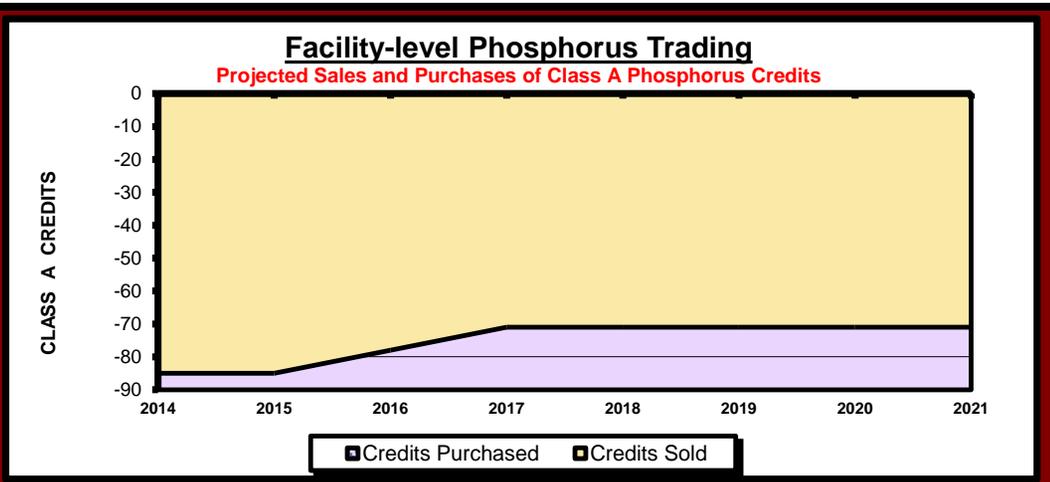
Loading & Credit Summary

Design Flow (mgd)	0.53
Projected Flow (mgd)	0.16
Projected Avg. Annual Concentration (mg/L)	21.00
Discharged Load (end of pipe)	10,233
Delivery Factor	1.00
Expected Load	10,233
Delivered WLA	6,457
Expected Credits (delivered)	(3,776)
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	(3,776)
Class A Credit Sales (Purchases)	(3,776)
Expected Class B Credits	0

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53
0.16	0.16	0.16	0.11	0.11	0.11	0.11	0.11
21.00	21.00	22.00	15.00	15.00	15.00	15.00	15.00
10,233	10,233	10,720	5,025	5,025	5,025	5,025	5,025
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
10,233	10,233	10,720	5,025	5,025	5,025	5,025	5,025
6,457	6,457	6,457	6,457	6,457	6,457	6,457	6,457
(3,776)	(3,776)	(4,263)	1,432	1,432	1,432	1,432	1,432
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
(3,776)	(3,776)	(4,263)	1,432	1,432	1,432	1,432	1,432
(3,776)	(3,776)	(4,263)	716	716	716	716	716
0	0	0	716	716	716	716	716

PHOSPHORUS FACILITY SUMMARY

American Water-Fort Hill
RAPPAHANNOCK Trading Basin



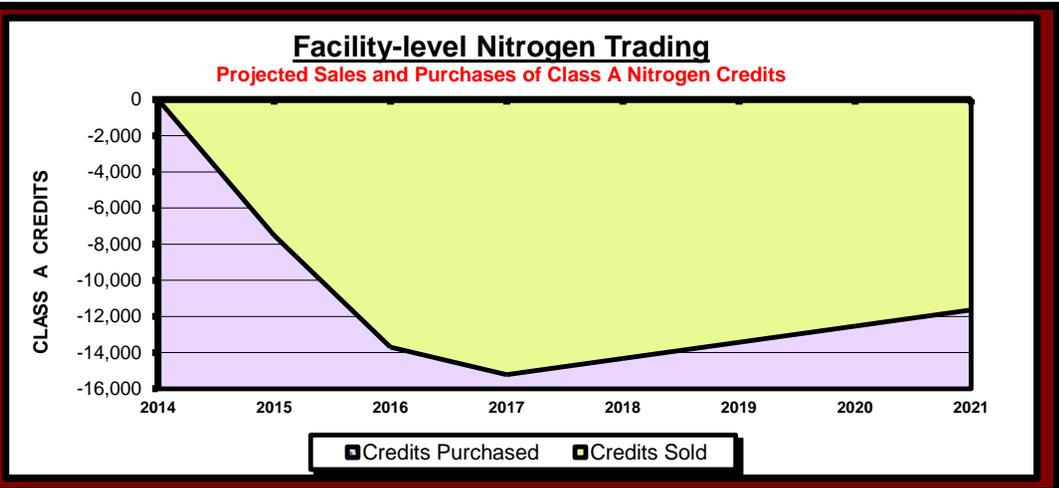
Loading & Credit Summary

Design Flow (mgd)	0.53
Projected Flow (mgd)	0.16
Projected Avg. Annual Concentration (mg/L)	0.30
Discharged Load (end of pipe)	146
Delivery Factor	1.00
Expected Load	146
Delivered WLA	484
Expected Credits (delivered)	338
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	338
Class A Credit Sales (Purchases)	85
Expected Class B Credits	253

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53
0.16	0.16	0.16	0.11	0.11	0.11	0.11	0.11
0.30	0.30	0.35	0.60	0.60	0.60	0.60	0.60
146	146	171	201	201	201	201	201
1.00	1.00	0.99	0.99	0.99	0.99	0.99	0.99
146	146	169	199	199	199	199	199
484	484	479	479	479	479	479	479
338	338	310	280	280	280	280	280
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
338	338	310	280	280	280	280	280
85	85	78	71	71	71	71	71
253	253	232	209	209	209	209	209

NITROGEN FACILITY SUMMARY

Culpeper (Town)
<i>RAPPAHANNOCK Trading Basin</i>

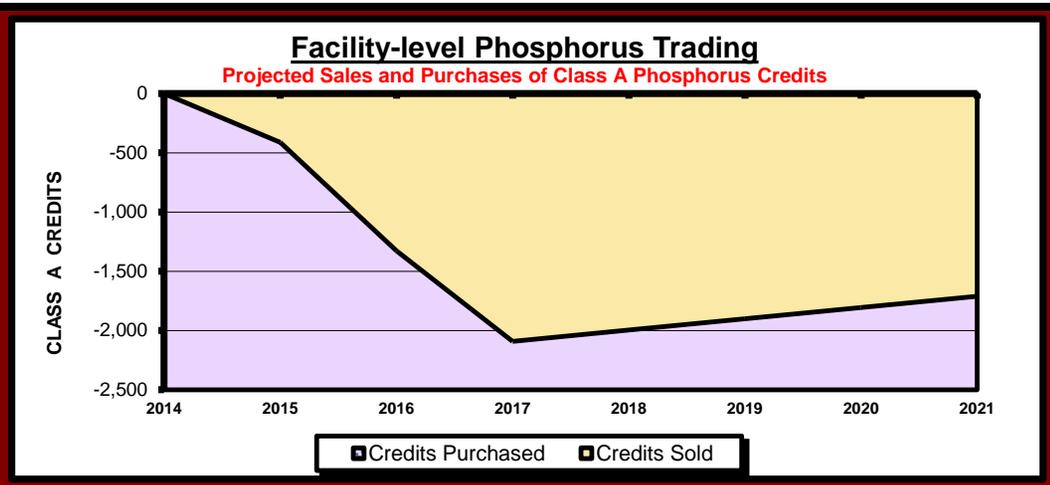


Loading & Credit Summary	
Design Flow (mgd)	
Projected Flow (mgd)	
Projected Avg. Annual Concentration (mg/L)	
Discharged Load (end of pipe)	
Delivery Factor	
Expected Load	
Delivered WLA	
Expected Credits (delivered)	
Transfers In (Out) within Owner Bubble	
Transfers In (Out) from Private Exchange	
WQIF-Held Credits	
Expected Net Credits	
Class A Credit Sales (Purchases)	
Expected Class B Credits	

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
4.50	4.50	4.60	4.60	4.80	5.00	5.20	5.40
3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
41,115	41,115	42,029	42,029	43,856	45,683	47,511	49,338
0.61	0.61	0.49	0.49	0.49	0.49	0.49	0.49
25,080	25,080	20,594	20,594	21,489	22,385	23,280	24,176
44,587	44,587	35,816	35,816	35,816	35,816	35,816	35,816
19,507	19,507	15,222	15,222	14,327	13,431	12,536	11,640
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
19,507	19,507	15,222	15,222	14,327	13,431	12,536	11,640
0	7,524	13,700	15,222	14,327	13,431	12,536	11,640
19,507	11,983	1,522	0	0	0	0	0

PHOSPHORUS FACILITY SUMMARY

Culpeper (Town)
<i>RAPPAHANNOCK Trading Basin</i>



Loading & Credit Summary	
Design Flow (mgd)	6.00
Projected Flow (mgd)	4.50
Projected Avg. Annual Concentration (mg/L)	0.27
Discharged Load (end of pipe)	3,700
Delivery Factor	1.00
Expected Load	3,700
Delivered WLA	5,483
Expected Credits (delivered)	1,783
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	1,783
Class A Credit Sales (Purchases)	0
Expected Class B Credits	1,783

2014	2015	2016	2017	2018	2019	2020	2021
<i>Planning Period</i>					<i>Future Estimates (non-binding)</i>		
6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
4.50	4.50	4.60	4.60	4.80	5.00	5.20	5.40
0.27	0.27	0.27	0.20	0.20	0.20	0.20	0.20
3,700	3,700	3,783	2,802	2,924	3,046	3,167	3,289
1.00	1.00	0.78	0.78	0.78	0.78	0.78	0.78
3,700	3,700	2,950	2,185	2,281	2,376	2,471	2,566
5,483	5,483	4,277	4,277	4,277	4,277	4,277	4,277
1,783	1,783	1,327	2,092	1,996	1,901	1,806	1,711
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
1,783	1,783	1,327	2,092	1,996	1,901	1,806	1,711
0	412	1,327	2,092	1,996	1,901	1,806	1,711
1,783	1,371	0	0	0	0	0	0

Owner Bubble: Fauquier County Water and Sanitation Authority

The facilities listed below have received an aggregated mass load limit pursuant to 9 VAC 25-820-70, Part 1.B.2., which is also referred to as an “owner bubble”. Accordingly, compliance is determined solely on an aggregate basis rather than by comparison of individual facility loads with respective individual WLAs.

The “Credit Transferred within Bubble” section of each table forecasts the use of Credits within the owner bubble during each Compliance Year, and must necessarily sum to zero. The specific Credit transfers shown in this table are provided for internal planning purposes only and, accordingly, are not binding and may change based on the actual performance of individual facilities within the bubble.

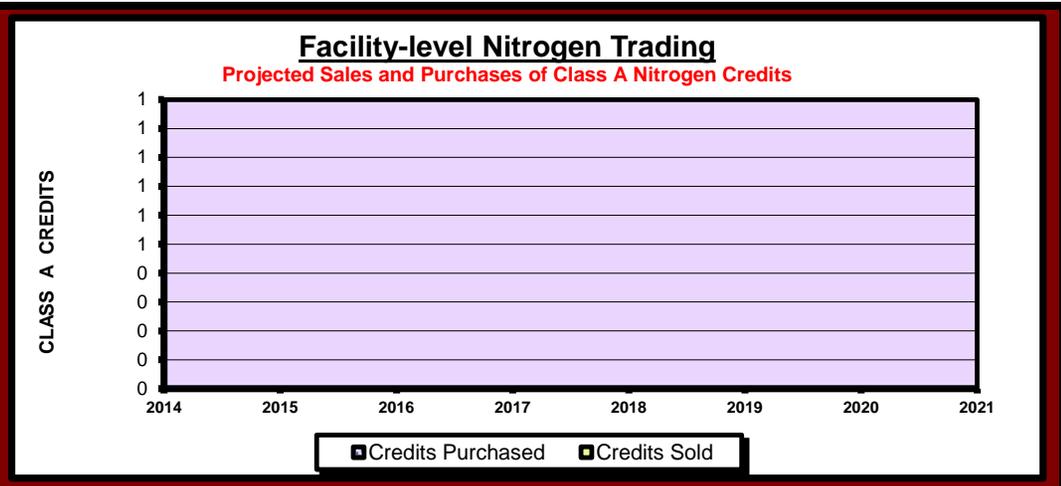
Expected Net Credits for an owner bubble may be either positive or negative. If Expected Net Credits is positive, the owner may pledge a percentage of such Credits to the Exchange. If Expected Net Credits is negative, Net Expected Credits identifies the number of Credits that must be purchased to comply with the aggregate Delivered WLA of the bubble.

NITROGEN Credits	Exchange 5-year Planning Period					Future Projections		
	2014	2015	2016	2017	2018	2019	2020	2021
Credits Transferred within Bubble								
Marshall	-	-	47	139	186	278	371	417
Remington	-	-	(47)	(139)	(186)	(278)	(371)	(417)
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
TOTAL (must sum to 0)	-	-	-	-	-	-	-	-
Credits Available outside Bubble								
Marshall	149	149	-	-	-	-	-	-
Remington	7,059	6,688	4,967	4,516	4,111	3,661	3,449	3,283
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Expected Net Credits	7,208	6,837	4,967	4,516	4,111	3,661	3,449	3,283
Class A Sales (Purchases)	0	0	0	0	0	0	0	0
<i>Expected Class B Credits</i>	<i>7,208</i>	<i>6,837</i>	<i>4,967</i>	<i>4,516</i>	<i>4,111</i>	<i>3,661</i>	<i>3,449</i>	<i>3,283</i>
<i>WQIF-Held Credits</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>

PHOSPHORUS Credits	Exchange 5-year Planning Period					Future Projections		
	2014	2015	2016	2017	2018	2019	2020	2021
Credits Transferred within Bubble								
Marshall	-	-	-	-	-	-	-	-
Remington	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
TOTAL (must sum to 0)	-	-	-	-	-	-	-	-
Credits Available outside Bubble								
Marshall	302	302	218	204	197	183	169	162
Remington	836	788	571	556	513	470	456	442
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Expected Net Credits	1,138	1,090	789	760	710	653	625	604
Class A Sales (Purchases)	0	0	0	0	0	0	0	0
<i>Expected Class B Credits</i>	<i>1,138</i>	<i>1,090</i>	<i>789</i>	<i>760</i>	<i>710</i>	<i>653</i>	<i>625</i>	<i>604</i>
<i>WQIF-Held Credits</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>

NITROGEN FACILITY SUMMARY

FCWSA-Marshall
RAPPAHANNOCK Trading Basin



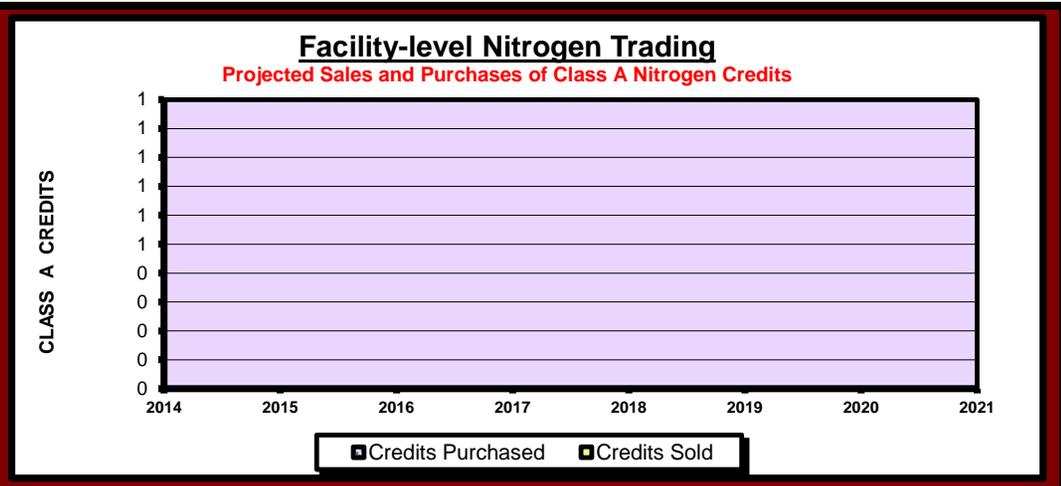
Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
0.31	0.31	0.33	0.35	0.36	0.38	0.40	0.41
8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
7,553	7,553	8,040	8,528	8,771	9,259	9,746	9,989
0.61	0.61	0.19	0.19	0.19	0.19	0.19	0.19
4,607	4,607	1,528	1,620	1,667	1,759	1,852	1,898
4,756	4,756	1,481	1,481	1,481	1,481	1,481	1,481
149	149	(47)	(139)	(186)	(278)	(371)	(417)
0	0	47	139	186	278	371	417
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
149	149	0	0	0	0	0	0
0	0	0	0	0	0	0	0
149	149	0	0	0	0	0	0

NITROGEN FACILITY SUMMARY

FCWSA-Remington
RAPPAHANNOCK Trading Basin



Loading & Credit Summary

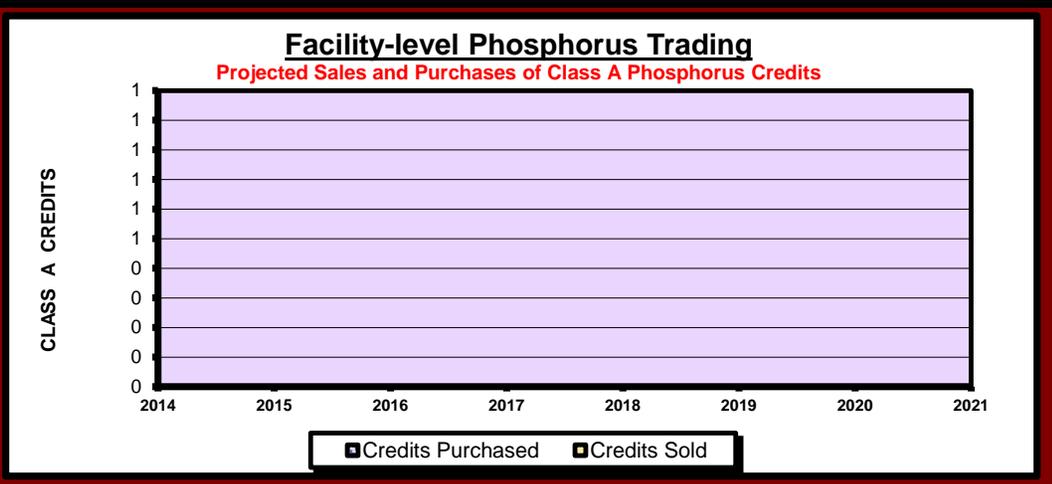
Design Flow (mgd)	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Projected Flow (mgd)	1.05	1.10	1.16	1.22	1.28	1.34	1.36	1.38
Projected Avg. Annual Concentration (mg/L)	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Discharged Load (end of pipe)	12,791	13,400	14,131	14,862	15,593	16,324	16,568	16,811
Delivery Factor	0.61	0.61	0.49	0.49	0.49	0.49	0.49	0.49
Expected Load	7,803	8,174	6,924	7,283	7,641	7,999	8,118	8,238
Delivered WLA	14,862	14,862	11,938	11,938	11,938	11,938	11,938	11,938
Expected Credits (delivered)	7,059	6,688	5,014	4,655	4,297	3,939	3,820	3,700
Transfers In (Out) within Owner Bubble	0	0	(47)	(139)	(186)	(278)	(371)	(417)
Transfers In (Out) from Private Exchange	0	0	0	0	0	0	0	0
WQIF-Held Credits	0	0	0	0	0	0	0	0
Expected Net Credits	7,059	6,688	4,967	4,516	4,111	3,661	3,449	3,283
Class A Credit Sales (Purchases)	0							
Expected Class B Credits	7,059	6,688	4,967	4,516	4,111	3,661	3,449	3,283

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
1.05	1.10	1.16	1.22	1.28	1.34	1.36	1.38
4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
12,791	13,400	14,131	14,862	15,593	16,324	16,568	16,811
0.61	0.61	0.49	0.49	0.49	0.49	0.49	0.49
7,803	8,174	6,924	7,283	7,641	7,999	8,118	8,238
14,862	14,862	11,938	11,938	11,938	11,938	11,938	11,938
7,059	6,688	5,014	4,655	4,297	3,939	3,820	3,700
0	0	(47)	(139)	(186)	(278)	(371)	(417)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
7,059	6,688	4,967	4,516	4,111	3,661	3,449	3,283
0	0	0	0	0	0	0	0
7,059	6,688	4,967	4,516	4,111	3,661	3,449	3,283

PHOSPHORUS FACILITY SUMMARY

FCWSA-Marshall

RAPPAHANNOCK Trading Basin



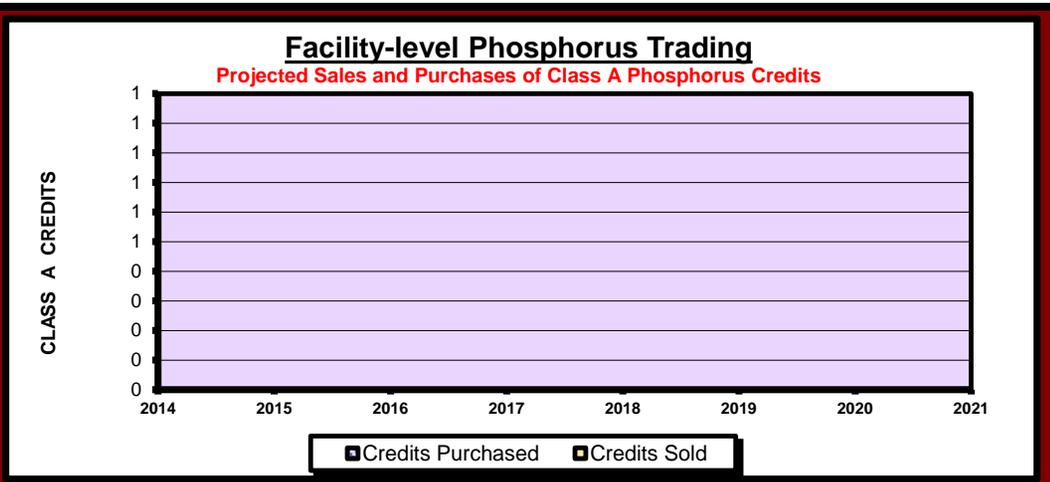
Loading & Credit Summary

Design Flow (mgd)	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
Projected Flow (mgd)	0.31	0.31	0.33	0.35	0.36	0.38	0.40	0.41
Projected Avg. Annual Concentration (mg/L)	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
Discharged Load (end of pipe)	283	283	302	320	329	347	365	375
Delivery Factor	1.00	1.00	0.77	0.77	0.77	0.77	0.77	0.77
Expected Load	283	283	232	246	253	267	281	288
Delivered WLA	585	585	450	450	450	450	450	450
Expected Credits (delivered)	302	302	218	204	197	183	169	162
Transfers In (Out) within Owner Bubble	0	0	0	0	0	0	0	0
Transfers In (Out) from Private Exchange	0	0	0	0	0	0	0	0
WQIF-Held Credits	0	0	0	0	0	0	0	0
Expected Net Credits	302	302	218	204	197	183	169	162
Class A Credit Sales (Purchases)	0	0	0	0	0	0	0	0
Expected Class B Credits	302	302	218	204	197	183	169	162

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
0.31	0.31	0.33	0.35	0.36	0.38	0.40	0.41
0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
283	283	302	320	329	347	365	375
1.00	1.00	0.77	0.77	0.77	0.77	0.77	0.77
283	283	232	246	253	267	281	288
585	585	450	450	450	450	450	450
302	302	218	204	197	183	169	162
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
302	302	218	204	197	183	169	162
0	0	0	0	0	0	0	0
302	302	218	204	197	183	169	162

PHOSPHORUS FACILITY SUMMARY

FCWSA-Remington
RAPPAHANNOCK Trading Basin



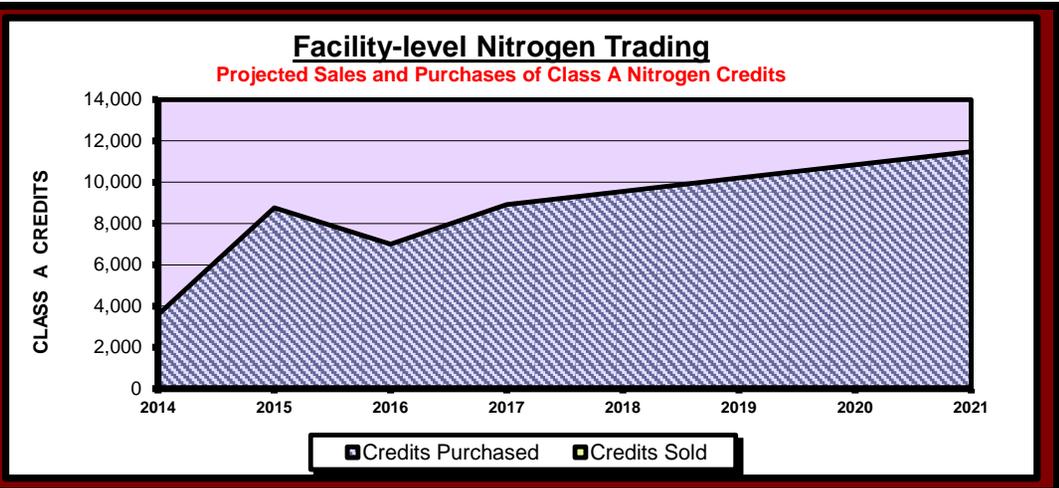
Loading & Credit Summary

Design Flow (mgd)	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Projected Flow (mgd)	1.05	1.10	1.16	1.22	1.28	1.34	1.36	1.38
Projected Avg. Annual Concentration (mg/L)	0.31	0.31	0.31	0.30	0.30	0.30	0.30	0.30
Discharged Load (end of pipe)	991	1,039	1,095	1,115	1,169	1,224	1,243	1,261
Delivery Factor	1.00	1.00	0.78	0.78	0.78	0.78	0.78	0.78
Expected Load	991	1,039	854	869	912	955	969	983
Delivered WLA	1,827	1,827	1,425	1,425	1,425	1,425	1,425	1,425
Expected Credits (delivered)	836	788	571	556	513	470	456	442
Transfers In (Out) within Owner Bubble	0	0	0	0	0	0	0	0
Transfers In (Out) from Private Exchange	0	0	0	0	0	0	0	0
WQIF-Held Credits	0	0	0	0	0	0	0	0
Expected Net Credits	836	788	571	556	513	470	456	442
Class A Credit Sales (Purchases)	0	0	0	0	0	0	0	0
Expected Class B Credits	836	788	571	556	513	470	456	442

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
1.05	1.10	1.16	1.22	1.28	1.34	1.36	1.38
0.31	0.31	0.31	0.30	0.30	0.30	0.30	0.30
991	1,039	1,095	1,115	1,169	1,224	1,243	1,261
1.00	1.00	0.78	0.78	0.78	0.78	0.78	0.78
991	1,039	854	869	912	955	969	983
1,827	1,827	1,425	1,425	1,425	1,425	1,425	1,425
836	788	571	556	513	470	456	442
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
836	788	571	556	513	470	456	442
0	0	0	0	0	0	0	0
836	788	571	556	513	470	456	442

NITROGEN FACILITY SUMMARY

Fredericksburg
RAPPAHANNOCK Trading Basin



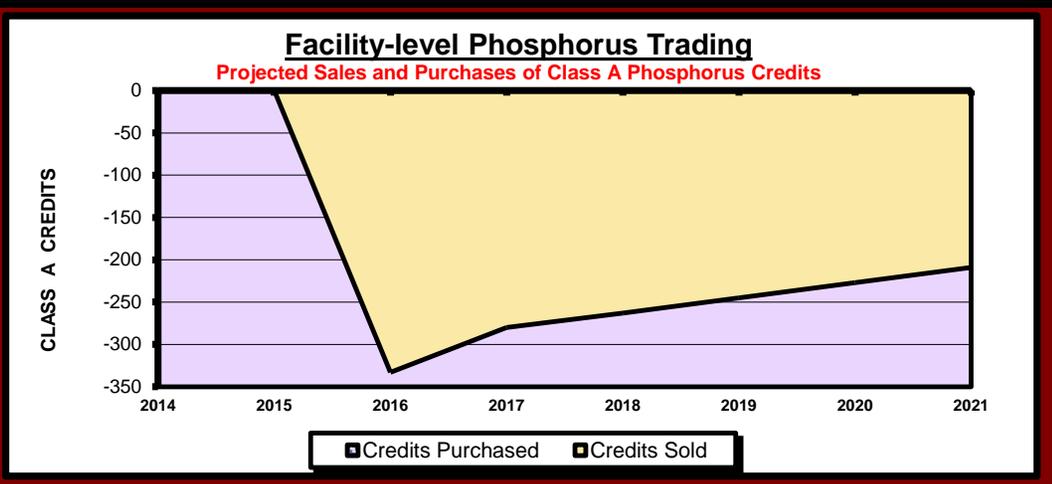
Loading & Credit Summary

Design Flow (mgd)	4.50
Projected Flow (mgd)	2.74
Projected Avg. Annual Concentration (mg/L)	7.00
Discharged Load (end of pipe)	58,414
Delivery Factor	1.00
Expected Load	58,414
Delivered WLA	54,820
Expected Credits (delivered)	(3,594)
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	(3,594)
Class A Credit Sales (Purchases)	(3,594)
Expected Class B Credits	0

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
2.74	2.82	2.90	2.99	3.02	3.05	3.08	3.11
7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
58,414	60,119	61,825	63,744	64,383	65,023	65,662	66,302
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
58,414	60,119	61,825	63,744	64,383	65,023	65,662	66,302
54,820	54,820	54,820	54,820	54,820	54,820	54,820	54,820
(3,594)	(5,299)	(7,005)	(8,924)	(9,563)	(10,203)	(10,842)	(11,482)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
(3,594)	(5,299)	(7,005)	(8,924)	(9,563)	(10,203)	(10,842)	(11,482)
0	3,472	0	0	0	0	0	0

PHOSPHORUS FACILITY SUMMARY

Fredericksburg
RAPPAHANNOCK Trading Basin



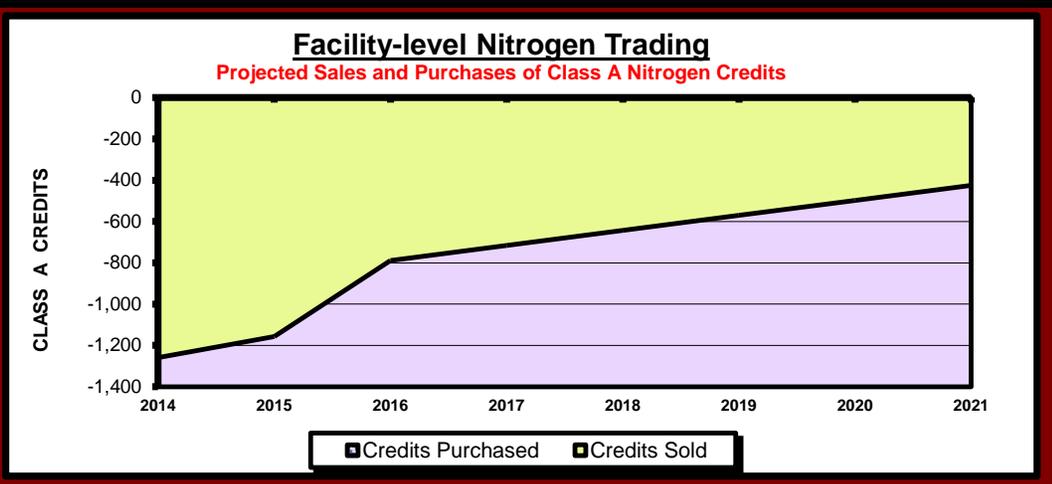
Loading & Credit Summary

Design Flow (mgd)	4.50
Projected Flow (mgd)	2.74
Projected Avg. Annual Concentration (mg/L)	0.39
Discharged Load (end of pipe)	3,254
Delivery Factor	1.00
Expected Load	3,254
Delivered WLA	4,112
Expected Credits (delivered)	858
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	858
Class A Credit Sales (Purchases)	0
Expected Class B Credits	858

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
2.74	2.82	2.90	2.99	3.02	3.05	3.08	3.11
0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39
3,254	3,350	3,445	3,551	3,587	3,623	3,658	3,694
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
3,254	3,350	3,445	3,551	3,587	3,623	3,658	3,694
4,112	4,112	4,112	4,112	4,112	4,112	4,112	4,112
858	762	667	561	525	489	454	418
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
858	762	667	561	525	489	454	418
0	0	333	280	263	245	227	209
858	762	334	281	262	244	227	209

NITROGEN FACILITY SUMMARY

Greene Co-Rapidan
RAPPAHANNOCK Trading Basin



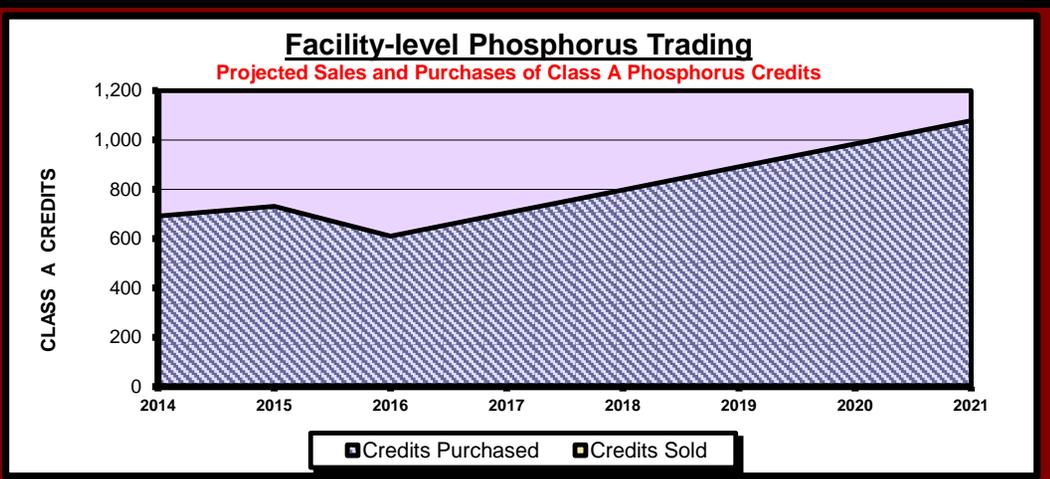
Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
0.10	0.11	0.11	0.12	0.13	0.14	0.15	0.16
11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
3,183	3,518	3,685	4,020	4,355	4,690	5,025	5,360
0.61	0.61	0.29	0.29	0.29	0.29	0.29	0.29
1,941	2,146	1,069	1,166	1,263	1,360	1,457	1,554
4,459	4,459	2,120	2,120	2,120	2,120	2,120	2,120
2,518	2,313	1,051	954	857	760	663	566
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
2,518	2,313	1,051	954	857	760	663	566
1,259	1,157	789	716	643	570	498	425
1,259	1,156	262	238	214	190	165	141

PHOSPHORUS FACILITY SUMMARY

Greene Co-Rapidan
RAPPAHANNOCK Trading Basin



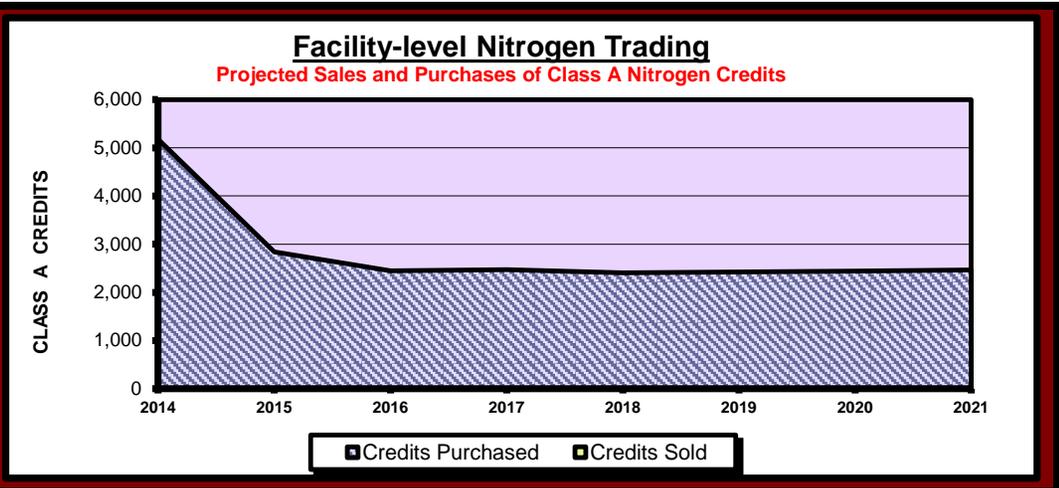
Loading & Credit Summary

Design Flow (mgd)	0.60
Projected Flow (mgd)	0.10
Projected Avg. Annual Concentration (mg/L)	4.00
Discharged Load (end of pipe)	1,157
Delivery Factor	1.00
Expected Load	1,157
Delivered WLA	548
Expected Credits (delivered)	(609)
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	(609)
Class A Credit Sales (Purchases)	(692)
Expected Class B Credits	83

	2014	2015	2016	2017	2018	2019	2020	2021
	Planning Period					Future Estimates (non-binding)		
Design Flow (mgd)	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
Projected Flow (mgd)	0.10	0.11	0.11	0.12	0.13	0.14	0.15	0.16
Projected Avg. Annual Concentration (mg/L)	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Discharged Load (end of pipe)	1,157	1,279	1,340	1,462	1,584	1,706	1,827	1,949
Delivery Factor	1.00	1.00	0.77	0.77	0.77	0.77	0.77	0.77
Expected Load	1,157	1,279	1,032	1,126	1,219	1,313	1,407	1,501
Delivered WLA	548	548	422	422	422	422	422	422
Expected Credits (delivered)	(609)	(731)	(610)	(704)	(797)	(891)	(985)	(1,079)
Transfers In (Out) within Owner Bubble	0	0	0	0	0	0	0	0
Transfers In (Out) from Private Exchange	0	0	0	0	0	0	0	0
WQIF-Held Credits	0	0	0	0	0	0	0	0
Expected Net Credits	(609)	(731)	(610)	(704)	(797)	(891)	(985)	(1,079)
Class A Credit Sales (Purchases)	(692)	(731)	(610)	(704)	(797)	(891)	(985)	(1,079)
Expected Class B Credits	83	0	0	0	0	0	0	0

NITROGEN FACILITY SUMMARY

HRSD-Urbanna
RAPPAHANNOCK Trading Basin

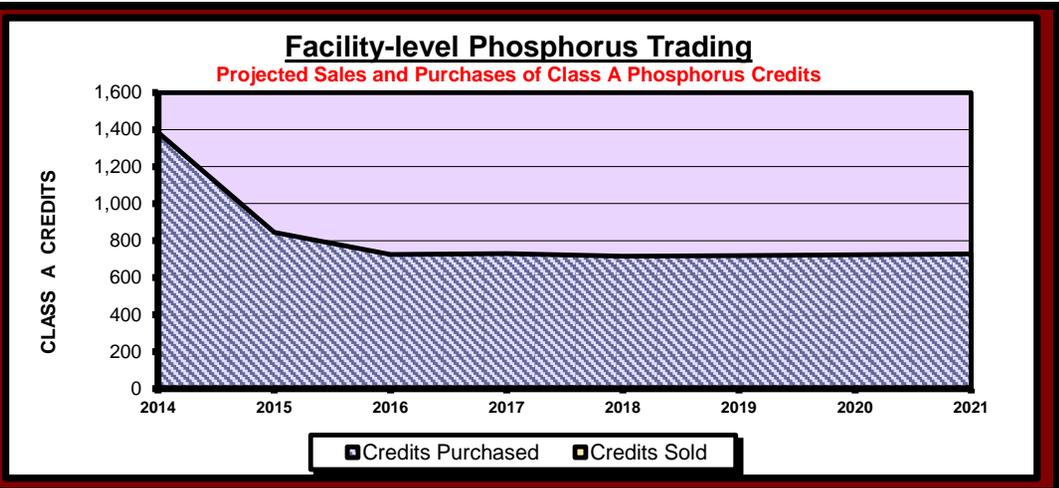


Loading & Credit Summary	
Design Flow (mgd)	0.10
Projected Flow (mgd)	0.05
Projected Avg. Annual Concentration (mg/L)	22.10
Discharged Load (end of pipe)	3,584
Delivery Factor	1.00
Expected Load	3,584
Delivered WLA	1,218
Expected Credits (delivered)	(2,366)
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	(2,366)
Class A Credit Sales (Purchases)	(5,176)
Expected Class B Credits	2,810

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
22.10	22.10	22.10	22.10	22.10	22.10	22.10	22.10
3,584	3,625	3,666	3,688	3,625	3,644	3,663	3,682
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
3,584	3,625	3,666	3,688	3,625	3,644	3,663	3,682
1,218	1,218	1,218	1,218	1,218	1,218	1,218	1,218
(2,366)	(2,407)	(2,448)	(2,470)	(2,407)	(2,426)	(2,445)	(2,464)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
(2,366)	(2,407)	(2,448)	(2,470)	(2,407)	(2,426)	(2,445)	(2,464)
(5,176)	(2,839)	(2,448)	(2,470)	(2,407)	(2,426)	(2,445)	(2,464)
2,810	432	0	0	0	0	0	0

PHOSPHORUS FACILITY SUMMARY

HRSD-Urbanna
RAPPAHANNOCK Trading Basin



Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
5.10	5.10	5.10	5.10	5.10	5.10	5.10	5.10
827	836	846	851	837	841	845	850
1.00	1.00	0.96	0.96	0.96	0.96	0.96	0.96
827	836	812	817	803	807	811	816
91	91	87	87	87	87	87	87
(736)	(745)	(725)	(730)	(716)	(720)	(724)	(729)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
(736)	(745)	(725)	(730)	(716)	(720)	(724)	(729)
(1,385)	(845)	(725)	(730)	(716)	(720)	(724)	(729)
649	100	0	0	0	0	0	0

Owner Bubble: King George County SA (Rappahannock)

The facilities listed below have received an aggregated mass load limit pursuant to 9 VAC 25-820-70, Part 1.B.2., which is also referred to as an “owner bubble”. Accordingly, compliance is determined solely on an aggregate basis rather than by comparison of individual facility loads with respective individual WLAs.

The “Credit Transferred within Bubble” section of each table forecasts the use of Credits within the owner bubble during each Compliance Year, and must necessarily sum to zero. The specific Credit transfers shown in this table are provided for internal planning purposes only and, accordingly, are not binding and may change based on the actual performance of individual facilities within the bubble.

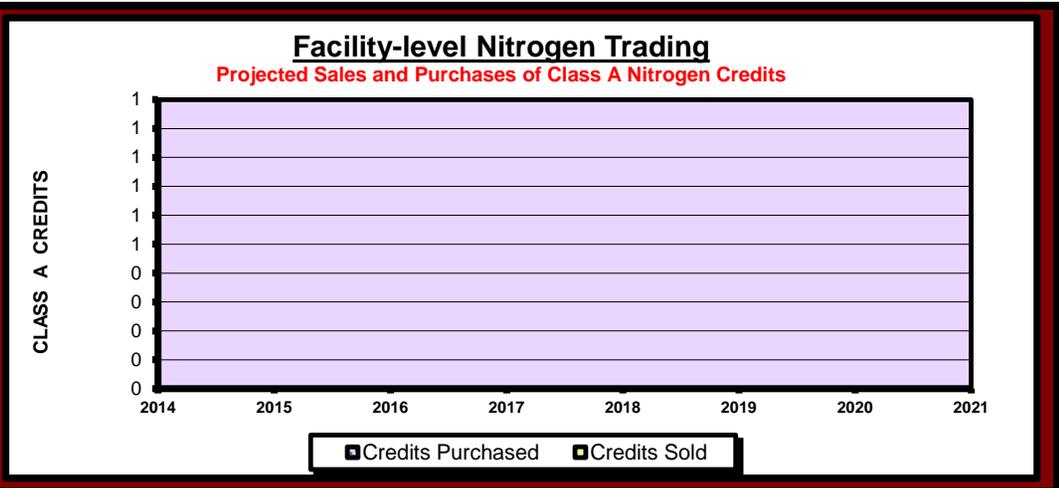
Expected Net Credits for an owner bubble may be either positive or negative. If Expected Net Credits is positive, the owner may pledge a percentage of such Credits to the Exchange. If Expected Net Credits is negative, Net Expected Credits identifies the number of Credits that must be purchased to comply with the aggregate Delivered WLA of the bubble.

NITROGEN Credits	Exchange 5-year Planning Period					Future Projections		
	2014	2015	2016	2017	2018	2019	2020	2021
Credits Transferred within Bubble								
Hopyard Farms	-	-	-	-	-	-	-	-
Oakland Park	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
TOTAL (must sum to 0)	-	-	-	-	-	-	-	-
Credits Available outside Bubble								
Hopyard Farms	2,741	2,741	2,923	3,106	3,015	2,741	2,741	2,558
Oakland Park	31	31	335	335	335	183	183	183
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Expected Net Credits	2,772	2,772	3,258	3,441	3,350	2,924	2,924	2,741
Class A Sales (Purchases)	0	0	0	0	0	0	0	0
<i>Expected Class B Credits</i>	<i>2,772</i>	<i>2,772</i>	<i>3,258</i>	<i>3,441</i>	<i>3,350</i>	<i>2,924</i>	<i>2,924</i>	<i>2,741</i>
<i>WQIF-Held Credits</i>	<i>1,523</i>	<i>1,523</i>	<i>1,523</i>	<i>1,523</i>	<i>1,523</i>	<i>1,523</i>	<i>1,523</i>	<i>1,523</i>

PHOSPHORUS Credits	Exchange 5-year Planning Period					Future Projections		
	2014	2015	2016	2017	2018	2019	2020	2021
Credits Transferred within Bubble								
Hopyard Farms	(40)	(40)	(9)	(9)	(9)	(24)	(24)	(24)
Oakland Park	40	40	9	9	9	24	24	24
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
TOTAL (must sum to 0)	-	-	-	-	-	-	-	-
Credits Available outside Bubble								
Hopyard Farms	151	151	194	209	202	164	164	149
Oakland Park	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Expected Net Credits	151	151	194	209	202	164	164	149
Class A Sales (Purchases)	0	0	0	0	0	0	0	0
<i>Expected Class B Credits</i>	<i>151</i>	<i>151</i>	<i>194</i>	<i>209</i>	<i>202</i>	<i>164</i>	<i>164</i>	<i>149</i>
<i>WQIF-Held Credits</i>	<i>114</i>	<i>114</i>	<i>113</i>	<i>113</i>	<i>113</i>	<i>113</i>	<i>113</i>	<i>113</i>

NITROGEN FACILITY SUMMARY

KGCSA-Hopyard Farms
RAPPAHANNOCK Trading Basin



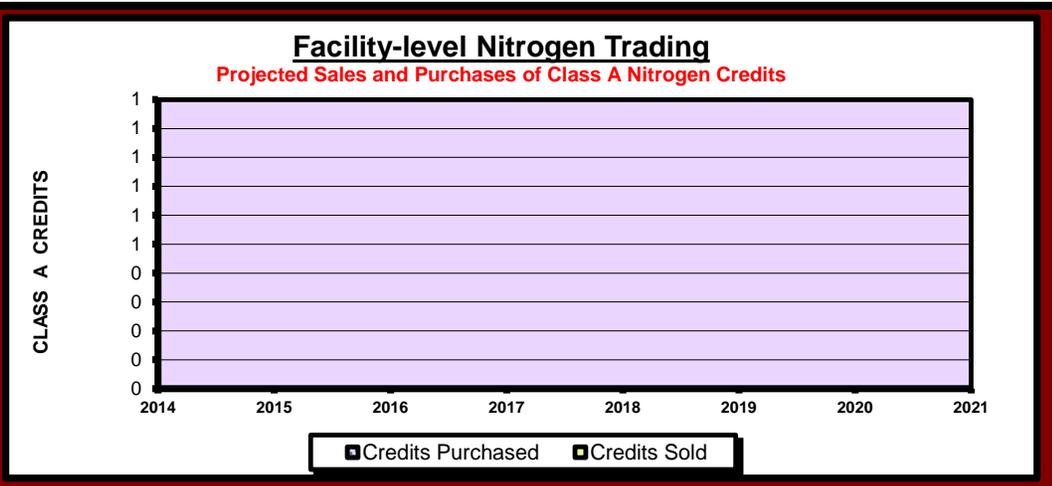
Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38
0.10	0.10	0.09	0.08	0.09	0.10	0.10	0.11
6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
1,827	1,827	1,645	1,462	1,553	1,827	1,827	2,010
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1,827	1,827	1,645	1,462	1,553	1,827	1,827	2,010
6,091	6,091	6,091	6,091	6,091	6,091	6,091	6,091
4,264	4,264	4,446	4,629	4,538	4,264	4,264	4,081
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
(1,523)	(1,523)	(1,523)	(1,523)	(1,523)	(1,523)	(1,523)	(1,523)
2,741	2,741	2,923	3,106	3,015	2,741	2,741	2,558
0	0	0	0	0	0	0	0
2,741	2,741	2,923	3,106	3,015	2,741	2,741	2,558

NITROGEN FACILITY SUMMARY

KGCSA-Oakland Park
RAPPAHANNOCK Trading Basin



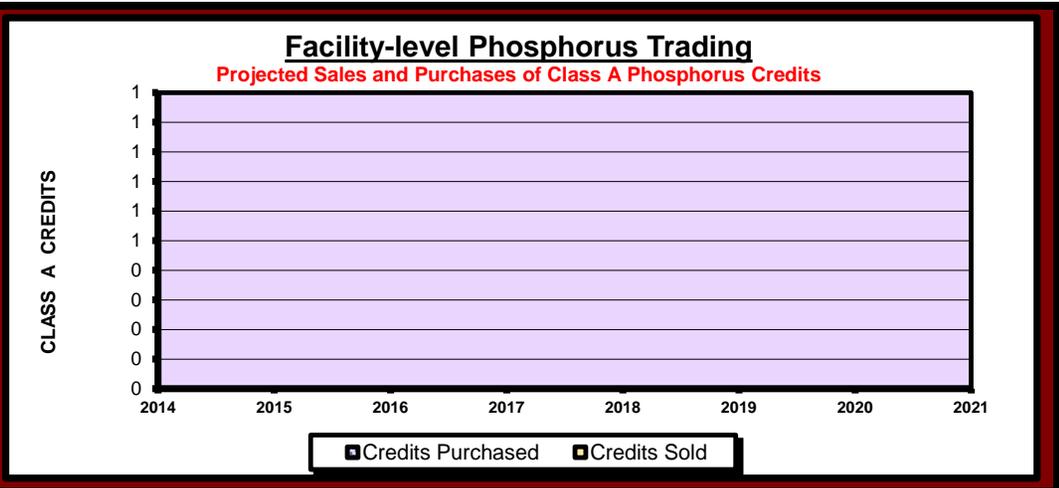
Loading & Credit Summary

Design Flow (mgd)	0.14
Projected Flow (mgd)	0.11
Projected Avg. Annual Concentration (mg/L)	5.00
Discharged Load (end of pipe)	1,675
Delivery Factor	1.00
Expected Load	1,675
Delivered WLA	1,706
Expected Credits (delivered)	31
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	31
Class A Credit Sales (Purchases)	0
Expected Class B Credits	31

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
0.11	0.11	0.09	0.09	0.09	0.10	0.10	0.10
5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
1,675	1,675	1,371	1,371	1,371	1,523	1,523	1,523
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1,675	1,675	1,371	1,371	1,371	1,523	1,523	1,523
1,706	1,706	1,706	1,706	1,706	1,706	1,706	1,706
31	31	335	335	335	183	183	183
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
31	31	335	335	335	183	183	183
0	0	0	0	0	0	0	0
31	31	335	335	335	183	183	183

PHOSPHORUS FACILITY SUMMARY

KGCSA-Hopyard Farms
RAPPAHANNOCK Trading Basin



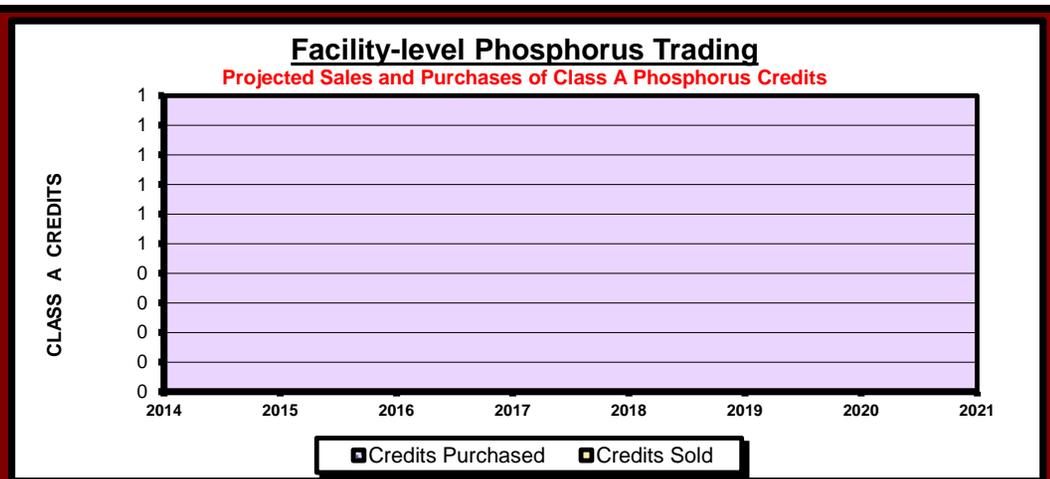
Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38
0.10	0.10	0.09	0.08	0.09	0.10	0.10	0.11
0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
152	152	137	122	129	152	152	168
1.00	1.00	0.99	0.99	0.99	0.99	0.99	0.99
152	152	136	121	128	151	151	166
457	457	452	452	452	452	452	452
305	305	316	331	324	301	301	286
(40)	(40)	(9)	(9)	(9)	(24)	(24)	(24)
0	0	0	0	0	0	0	0
(114)	(114)	(113)	(113)	(113)	(113)	(113)	(113)
151	151	194	209	202	164	164	149
0	0	0	0	0	0	0	0
151	151	194	209	202	164	164	149

PHOSPHORUS FACILITY SUMMARY

KGCSA-Oakland Park
RAPPAHANNOCK Trading Basin



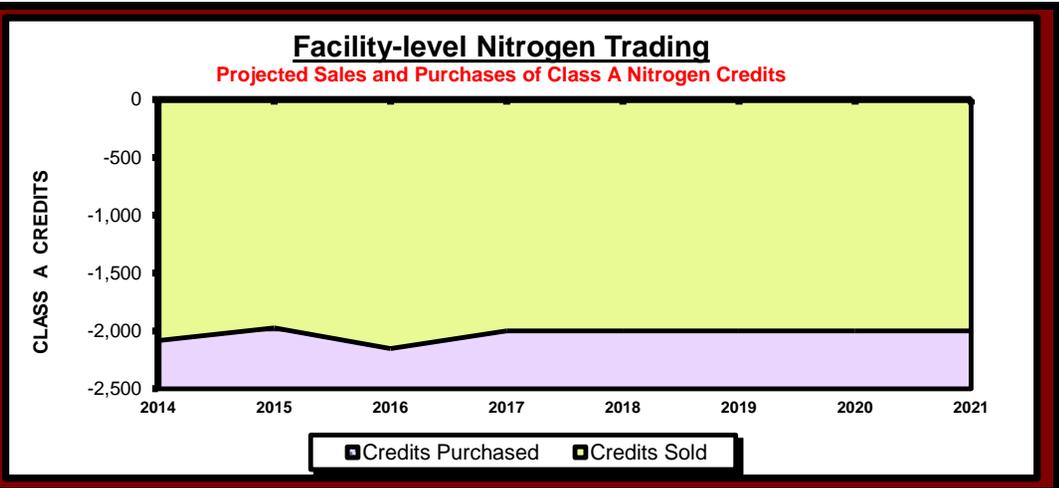
Loading & Credit Summary

Design Flow (mgd)	Projected Flow (mgd)	Projected Avg. Annual Concentration (mg/L)	Discharged Load (end of pipe)	Delivery Factor	Expected Load	Delivered WLA	Expected Credits (delivered)	Transfers In (Out) within Owner Bubble	Transfers In (Out) from Private Exchange	WQIF-Held Credits	Expected Net Credits	Class A Credit Sales (Purchases)	Expected Class B Credits
-------------------	----------------------	--	--------------------------------------	-----------------	---------------	---------------	-------------------------------------	--	--	-------------------	-----------------------------	---	---------------------------------

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
0.11	0.11	0.09	0.09	0.09	0.10	0.10	0.10
0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
168	168	137	137	137	152	152	152
1.00	1.00	0.97	0.97	0.97	0.97	0.97	0.97
168	168	133	133	133	148	148	148
128	128	124	124	124	124	124	124
(40)	(40)	(9)	(9)	(9)	(24)	(24)	(24)
40	40	9	9	9	24	24	24
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

NITROGEN FACILITY SUMMARY

Kilmarnock
<i>RAPPAHANNOCK Trading Basin</i>

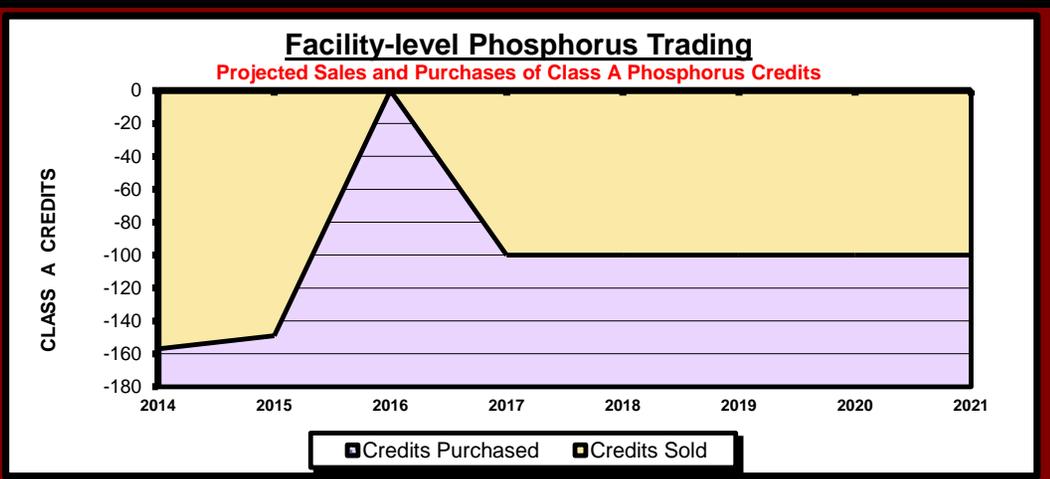


Loading & Credit Summary	
Design Flow (mgd)	
Projected Flow (mgd)	
Projected Avg. Annual Concentration (mg/L)	
Discharged Load (end of pipe)	
Delivery Factor	
Expected Load	
Delivered WLA	
Expected Credits (delivered)	
Transfers In (Out) within Owner Bubble	
Transfers In (Out) from Private Exchange	
WQIF-Held Credits	
Expected Net Credits	
Class A Credit Sales (Purchases)	
Expected Class B Credits	

2014	2015	2016	2017	2018	2019	2020	2021
<i>Planning Period</i>					<i>Future Estimates (non-binding)</i>		
0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
0.31	0.32	0.33	0.35	0.35	0.35	0.35	0.35
4.00	4.00	3.00	3.00	3.00	3.00	3.00	3.00
3,776	3,898	3,015	3,198	3,198	3,198	3,198	3,198
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
3,776	3,898	3,015	3,198	3,198	3,198	3,198	3,198
6,091	6,091	6,091	6,091	6,091	6,091	6,091	6,091
2,315	2,193	3,076	2,893	2,893	2,893	2,893	2,893
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
2,315	2,193	3,076	2,893	2,893	2,893	2,893	2,893
2,084	1,974	2,153	2,000	2,000	2,000	2,000	2,000
231	219	923	893	893	893	893	893

PHOSPHORUS FACILITY SUMMARY

Kilmarnock
RAPPAHANNOCK Trading Basin



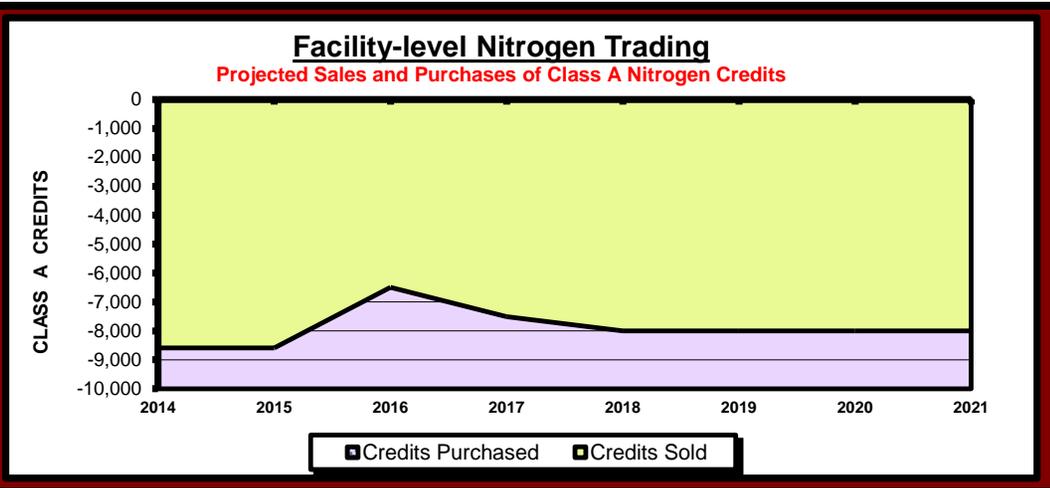
Loading & Credit Summary

Design Flow (mgd)	0.50
Projected Flow (mgd)	0.31
Projected Avg. Annual Concentration (mg/L)	0.30
Discharged Load (end of pipe)	283
Delivery Factor	1.00
Expected Load	283
Delivered WLA	457
Expected Credits (delivered)	174
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	174
Class A Credit Sales (Purchases)	157
Expected Class B Credits	17

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
0.31	0.32	0.33	0.35	0.35	0.35	0.35	0.35
0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
283	292	302	320	320	320	320	320
1.00	1.00	0.99	0.99	0.99	0.99	0.99	0.99
283	292	298	317	317	317	317	317
457	457	452	452	452	452	452	452
174	165	154	135	135	135	135	135
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
174	165	154	135	135	135	135	135
157	149	0	100	100	100	100	100
17	16	154	35	35	35	35	35

NITROGEN FACILITY SUMMARY

Omega Protein
RAPPAHANNOCK Trading Basin



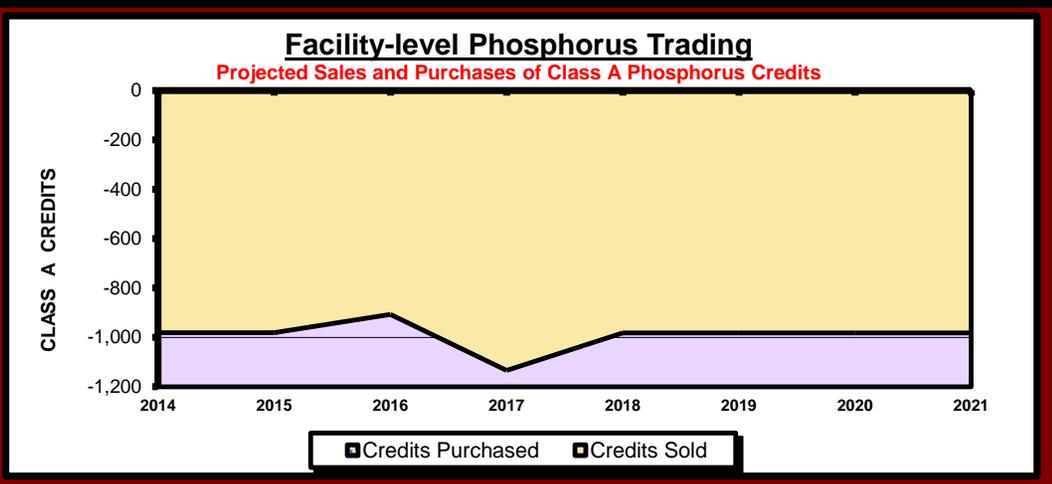
Loading & Credit Summary

Design Flow (mgd)	3.21
Projected Flow (mgd)	0.08
Projected Avg. Annual Concentration (mg/L)	43.00
Discharged Load (end of pipe)	10,477
Delivery Factor	1.00
Expected Load	10,477
Delivered WLA	21,213
Expected Credits (delivered)	10,736
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	10,736
Class A Credit Sales (Purchases)	8,589
Expected Class B Credits	2,147

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
3.21	3.21	3.21	3.21	3.21	3.21	3.21	3.21
0.08	0.08	0.10	0.15	0.20	0.20	0.20	0.20
43.00	43.00	43.00	30.00	20.00	20.00	20.00	20.00
10,477	10,477	13,096	13,705	12,182	12,182	12,182	12,182
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
10,477	10,477	13,096	13,705	12,182	12,182	12,182	12,182
21,213	21,213	21,213	21,213	21,213	21,213	21,213	21,213
10,736	10,736	8,117	7,508	9,031	9,031	9,031	9,031
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
10,736	10,736	8,117	7,508	9,031	9,031	9,031	9,031
8,589	8,589	6,494	7,508	8,000	8,000	8,000	8,000
2,147	2,147	1,623	0	1,031	1,031	1,031	1,031

PHOSPHORUS FACILITY SUMMARY

Omega Protein
RAPPAHANNOCK Trading Basin



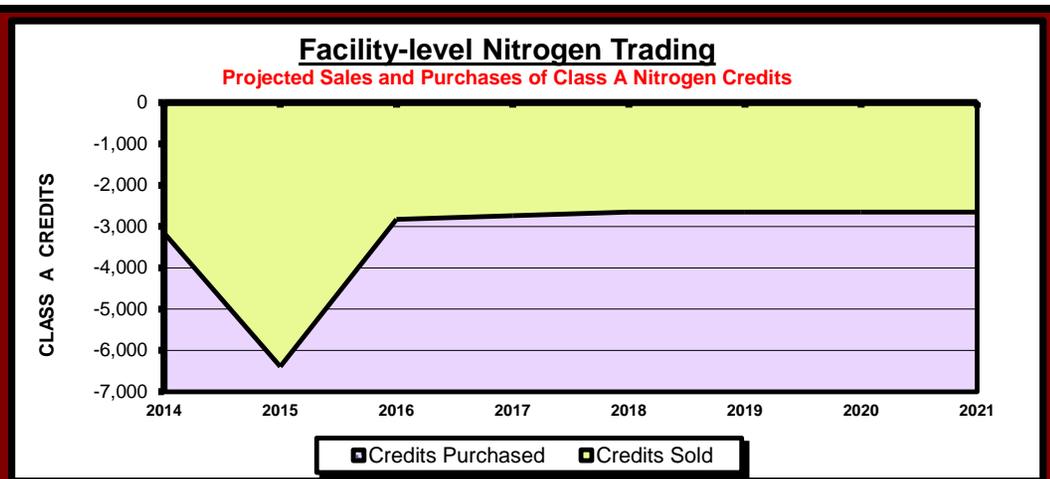
Loading & Credit Summary

Design Flow (mgd)	3.21
Projected Flow (mgd)	0.08
Projected Avg. Annual Concentration (mg/L)	1.50
Discharged Load (end of pipe)	365
Delivery Factor	1.00
Expected Load	365
Delivered WLA	1,591
Expected Credits (delivered)	1,226
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	1,226
Class A Credit Sales (Purchases)	981
Expected Class B Credits	245

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
3.21	3.21	3.21	3.21	3.21	3.21	3.21	3.21
0.08	0.08	0.10	0.15	0.20	0.20	0.20	0.20
1.50	1.50	1.50	1.00	1.00	1.00	1.00	1.00
365	365	457	457	609	609	609	609
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
365	365	457	457	609	609	609	609
1,591	1,591	1,591	1,591	1,591	1,591	1,591	1,591
1,226	1,226	1,134	1,134	982	982	982	982
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
1,226	1,226	1,134	1,134	982	982	982	982
981	981	907	1,134	982	982	982	982
245	245	227	0	0	0	0	0

NITROGEN FACILITY SUMMARY

Orange (Town)
RAPPAHANNOCK Trading Basin



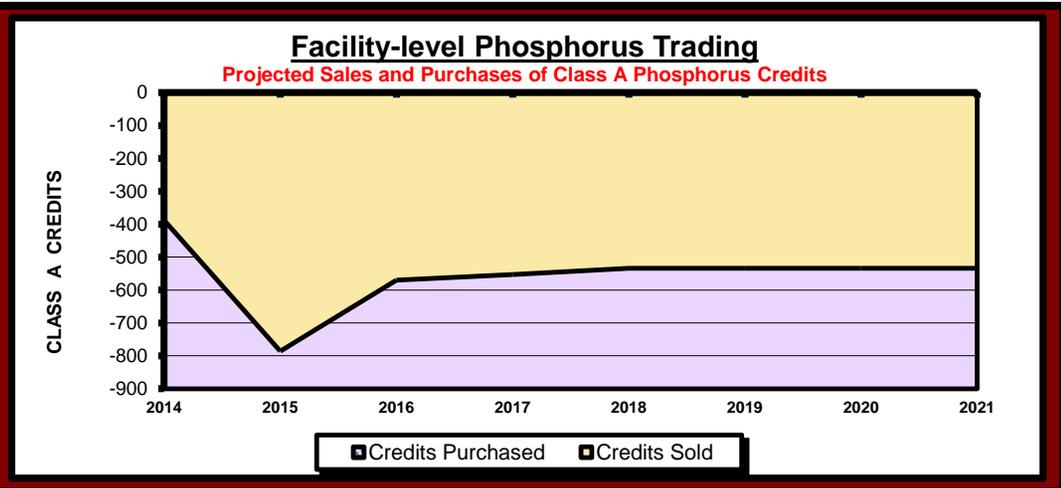
Loading & Credit Summary

Design Flow (mgd)	3.00
Projected Flow (mgd)	1.25
Projected Avg. Annual Concentration (mg/L)	4.00
Discharged Load (end of pipe)	15,228
Delivery Factor	0.61
Expected Load	9,289
Delivered WLA	22,293
Expected Credits (delivered)	13,004
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	13,004
Class A Credit Sales (Purchases)	3,158
Expected Class B Credits	9,846

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
1.25	1.28	1.40	1.45	1.50	1.50	1.50	1.50
4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
15,228	15,593	17,055	17,664	18,273	18,273	18,273	18,273
0.61	0.61	0.29	0.29	0.29	0.29	0.29	0.29
9,289	9,512	4,946	5,123	5,299	5,299	5,299	5,299
22,293	22,293	10,599	10,599	10,599	10,599	10,599	10,599
13,004	12,781	5,653	5,476	5,300	5,300	5,300	5,300
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
13,004	12,781	5,653	5,476	5,300	5,300	5,300	5,300
3,158	6,391	2,827	2,738	2,650	2,650	2,650	2,650
9,846	6,390	2,826	2,738	2,650	2,650	2,650	2,650

PHOSPHORUS FACILITY SUMMARY

Orange (Town)
<i>RAPPAHANNOCK Trading Basin</i>

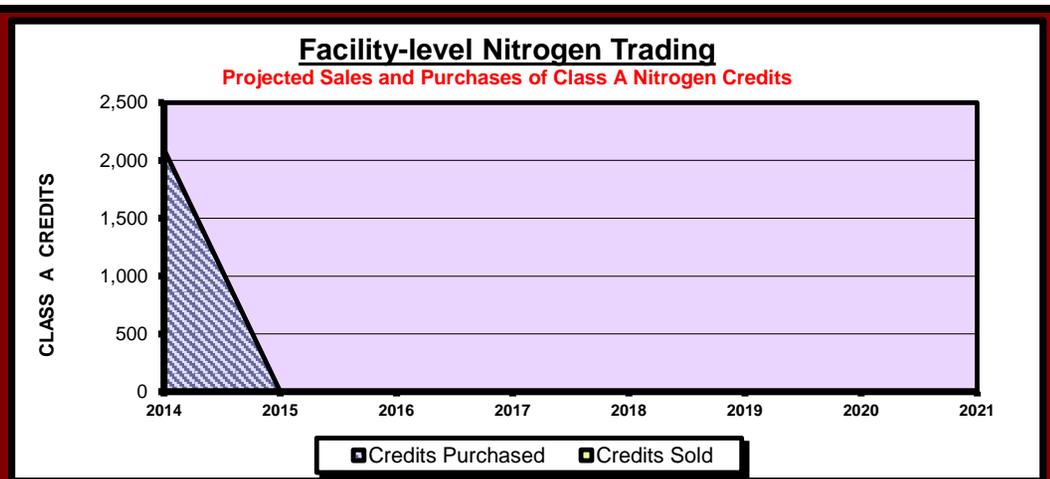


Loading & Credit Summary	
Design Flow (mgd)	3.00
Projected Flow (mgd)	1.25
Projected Avg. Annual Concentration (mg/L)	0.30
Discharged Load (end of pipe)	1,142
Delivery Factor	1.00
Expected Load	1,142
Delivered WLA	2,741
Expected Credits (delivered)	1,599
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	1,599
Class A Credit Sales (Purchases)	388
Expected Class B Credits	1,211

2014	2015	2016	2017	2018	2019	2020	2021
<i>Planning Period</i>					<i>Future Estimates (non-binding)</i>		
3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
1.25	1.28	1.40	1.45	1.50	1.50	1.50	1.50
0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
1,142	1,169	1,279	1,325	1,371	1,371	1,371	1,371
1.00	1.00	0.78	0.78	0.78	0.78	0.78	0.78
1,142	1,169	998	1,033	1,069	1,069	1,069	1,069
2,741	2,741	2,138	2,138	2,138	2,138	2,138	2,138
1,599	1,572	1,140	1,105	1,069	1,069	1,069	1,069
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
1,599	1,572	1,140	1,105	1,069	1,069	1,069	1,069
388	786	570	553	534	534	534	534
1,211	786	570	552	535	535	535	535

NITROGEN FACILITY SUMMARY

Reedville S.D.
RAPPAHANNOCK Trading Basin



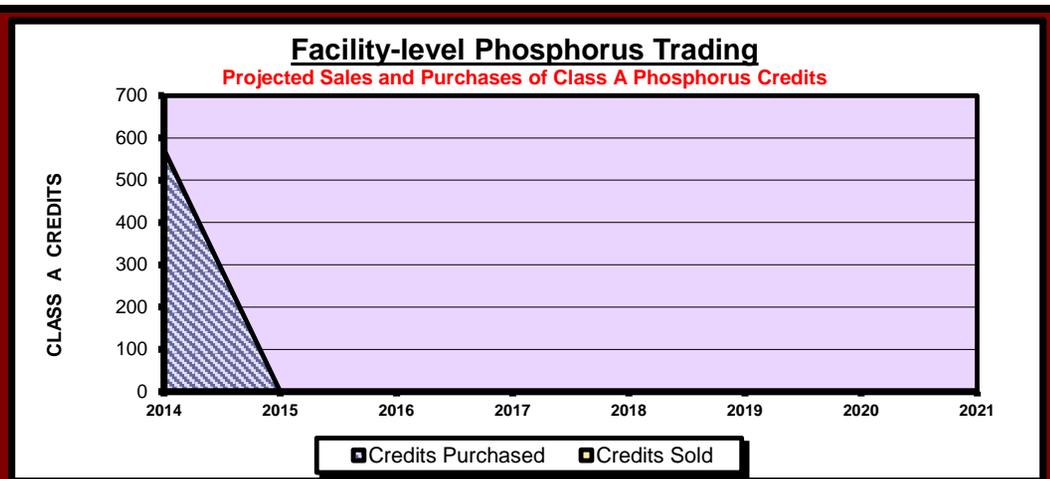
Loading & Credit Summary

Design Flow (mgd)	0.20
Projected Flow (mgd)	0.07
Projected Avg. Annual Concentration (mg/L)	4.00
Discharged Load (end of pipe)	853
Delivery Factor	1.00
Expected Load	853
Delivered WLA	2,436
Expected Credits (delivered)	1,583
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	1,583
Class A Credit Sales (Purchases)	(2,096)
Expected Class B Credits	3,679

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
853	853	853	853	853	853	853	853
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
853	853	853	853	853	853	853	853
2,436	2,436	2,436	2,436	2,436	2,436	2,436	2,436
1,583	1,583	1,583	1,583	1,583	1,583	1,583	1,583
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
1,583	1,583	1,583	1,583	1,583	1,583	1,583	1,583
(2,096)	0	0	0	0	0	0	0
3,679	1,583	1,583	1,583	1,583	1,583	1,583	1,583

PHOSPHORUS FACILITY SUMMARY

Reedville S.D.
RAPPAHANNOCK Trading Basin

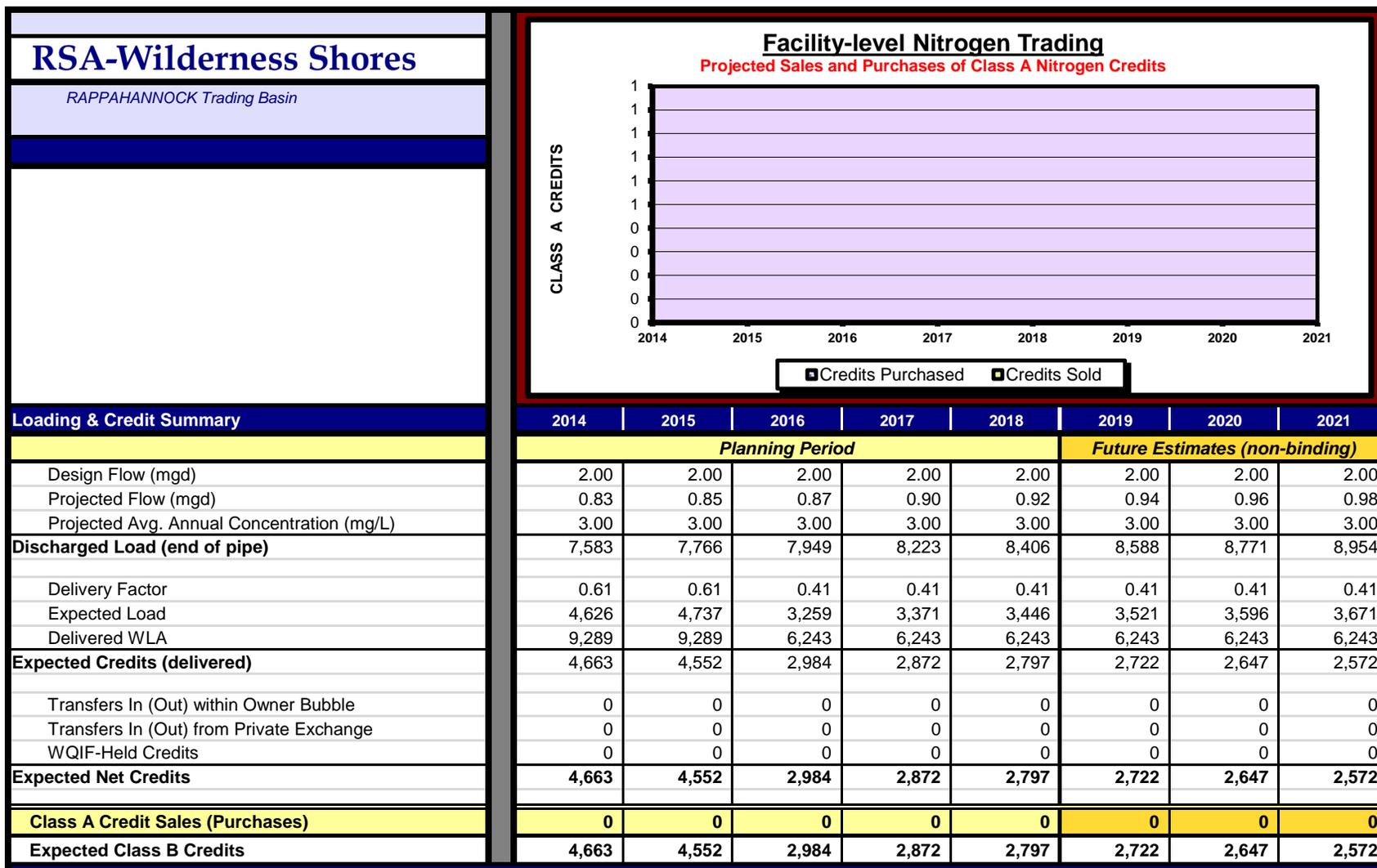


Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

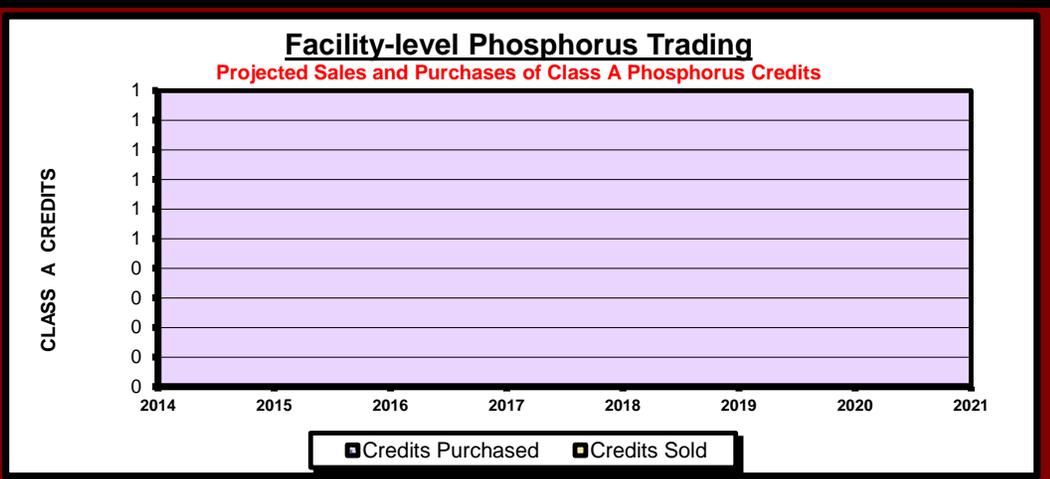
2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
64	64	64	64	64	64	64	64
1.00	1.00	0.98	0.98	0.98	0.98	0.98	0.98
64	64	63	63	63	63	63	63
183	183	179	179	179	179	179	179
119	119	116	116	116	116	116	116
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
119	119	116	116	116	116	116	116
(572)	0	0	0	0	0	0	0
691	119	116	116	116	116	116	116

NITROGEN FACILITY SUMMARY



PHOSPHORUS FACILITY SUMMARY

RSA-Wilderness Shores
RAPPAHANNOCK Trading Basin



Loading & Credit Summary

Design Flow (mgd)	Projected Flow (mgd)	Projected Avg. Annual Concentration (mg/L)	Discharged Load (end of pipe)	Delivery Factor	Expected Load	Delivered WLA	Expected Credits (delivered)	Transfers In (Out) within Owner Bubble	Transfers In (Out) from Private Exchange	WQIF-Held Credits	Expected Net Credits	Class A Credit Sales (Purchases)	Expected Class B Credits
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2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
0.83	0.85	0.87	0.90	0.92	0.94	0.96	0.98
0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
758	777	795	822	841	859	877	895
1.00	1.00	0.77	0.77	0.77	0.77	0.77	0.77
758	777	612	633	647	661	675	689
1,142	1,142	879	879	879	879	879	879
384	365	267	246	232	218	204	190
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
384	365	267	246	232	218	204	190
0	0	0	0	0	0	0	0
384	365	267	246	232	218	204	190

Owner Bubble: Spotsylvania County

The facilities listed below have received an aggregated mass load limit pursuant to 9 VAC 25-820-70, Part 1.B.2., which is also referred to as an “owner bubble”. Accordingly, compliance is determined solely on an aggregate basis rather than by comparison of individual facility loads with respective individual WLAs.

The “Credit Transferred within Bubble” section of each table forecasts the use of Credits within the owner bubble during each Compliance Year, and must necessarily sum to zero. The specific Credit transfers shown in this table are provided for internal planning purposes only and, accordingly, are not binding and may change based on the actual performance of individual facilities within the bubble.

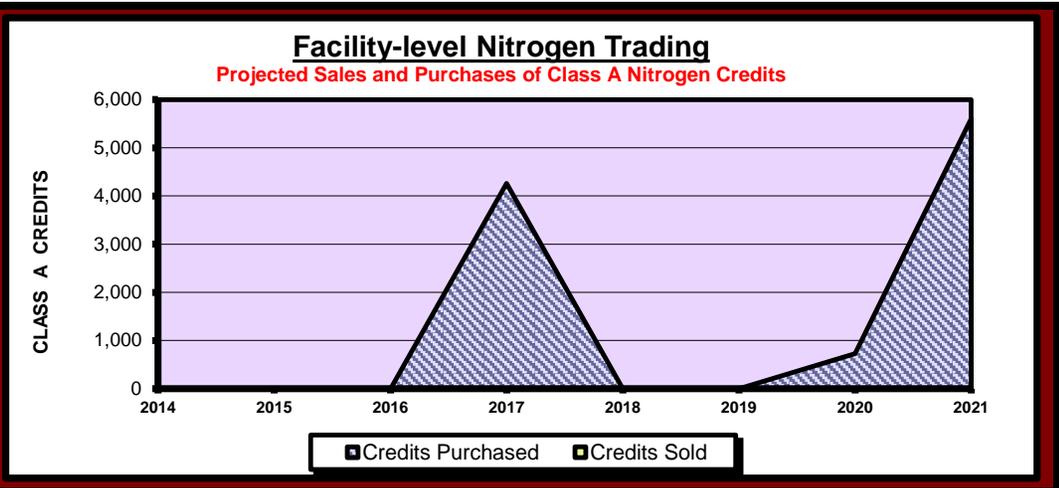
Expected Net Credits for an owner bubble may be either positive or negative. If Expected Net Credits is positive, the owner may pledge a percentage of such Credits to the Exchange. If Expected Net Credits is negative, Net Expected Credits identifies the number of Credits that must be purchased to comply with the aggregate Delivered WLA of the bubble.

NITROGEN Credits	Exchange 5-year Planning Period					Future Projections		
	2014	2015	2016	2017	2018	2019	2020	2021
Credits Transferred within Bubble								
FMC	22,895	25,087	27,280	25,209	21,189	23,382	24,600	21,920
Massaponax	(22,895)	(25,087)	(27,280)	(25,209)	(21,189)	(23,382)	(24,600)	(21,920)
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
TOTAL (must sum to 0)	-	-	-	-	-	-	-	-
Credits Available outside Bubble								
FMC	-	-	-	(4,264)	-	-	(731)	(5,604)
Massaponax	9,867	5,239	487	-	8,528	3,898	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Expected Net Credits	9,867	5,239	487	(4,264)	8,528	3,898	(731)	(5,604)
Class A Sales (Purchases)	4,934	2,620	122	(4,264)	0	0	(731)	(5,604)
<i>Expected Class B Credits</i>	<i>4,933</i>	<i>2,619</i>	<i>365</i>	<i>0</i>	<i>8,528</i>	<i>3,898</i>	<i>0</i>	<i>0</i>
<i>WQIF-Held Credits</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>

PHOSPHORUS Credits	Exchange 5-year Planning Period					Future Projections		
	2014	2015	2016	2017	2018	2019	2020	2021
Credits Transferred within Bubble								
FMC	-	-	-	-	-	-	-	-
Massaponax	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
TOTAL (must sum to 0)	-	-	-	-	-	-	-	-
Credits Available outside Bubble								
FMC	969	887	804	722	1,033	951	877	795
Massaponax	2,274	2,092	1,900	1,708	2,046	1,863	1,662	1,461
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Expected Net Credits	3,243	2,979	2,704	2,430	3,079	2,814	2,539	2,256
Class A Sales (Purchases)	1,622	1,490	1,261	1,128	1,084	936	877	724
<i>Expected Class B Credits</i>	<i>1,621</i>	<i>1,489</i>	<i>1,443</i>	<i>1,302</i>	<i>1,995</i>	<i>1,878</i>	<i>1,662</i>	<i>1,532</i>
<i>WQIF-Held Credits</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>

NITROGEN FACILITY SUMMARY

Spotsy Co-FMC
RAPPAHANNOCK Trading Basin



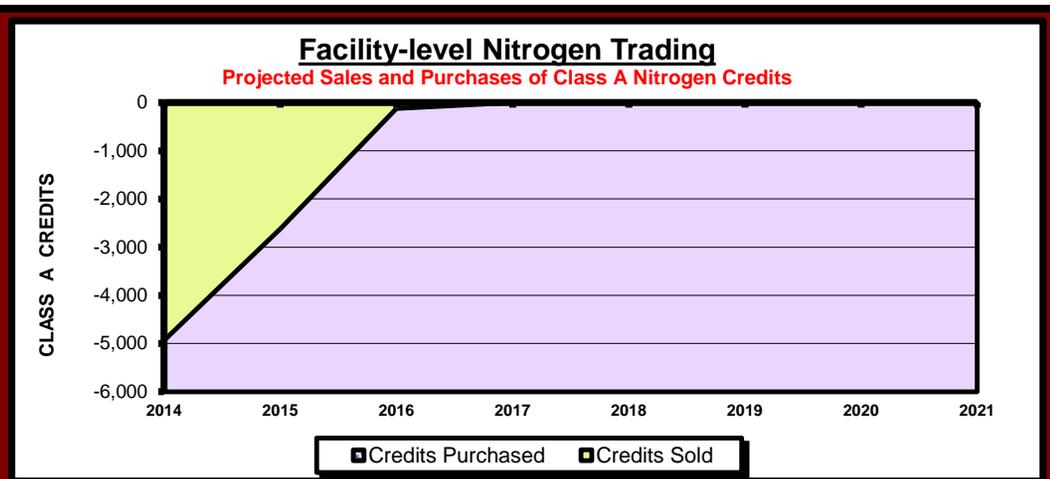
Loading & Credit Summary

Design Flow (mgd)	4.00
Projected Flow (mgd)	2.94
Projected Avg. Annual Concentration (mg/L)	8.00
Discharged Load (end of pipe)	71,632
Delivery Factor	1.00
Expected Load	71,632
Delivered WLA	48,737
Expected Credits (delivered)	(22,895)
Transfers In (Out) within Owner Bubble	22,895
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	0
Class A Credit Sales (Purchases)	0
Expected Class B Credits	0

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
2.94	3.03	3.12	3.21	2.87	2.96	3.04	3.13
8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
71,632	73,824	76,017	78,210	69,926	72,119	74,068	76,261
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
71,632	73,824	76,017	78,210	69,926	72,119	74,068	76,261
48,737	48,737	48,737	48,737	48,737	48,737	48,737	48,737
(22,895)	(25,087)	(27,280)	(29,473)	(21,189)	(23,382)	(25,331)	(27,524)
22,895	25,087	27,280	25,209	21,189	23,382	24,600	21,920
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	(4,264)	0	0	(731)	(5,604)
0	0	0	(4,264)	0	0	(731)	(5,604)
0	0	0	0	0	0	0	0

NITROGEN FACILITY SUMMARY

Spotsy Co-Massaponax
RAPPAHANNOCK Trading Basin



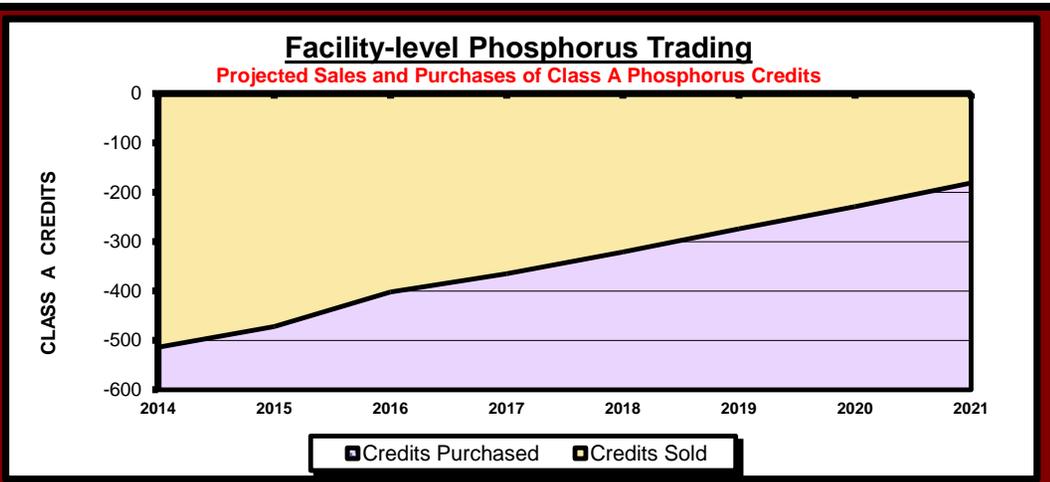
Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
6.71	6.91	7.12	7.33	6.96	7.16	7.38	7.60
4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
81,743	84,179	86,738	89,296	84,788	87,225	89,905	92,585
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
81,743	84,179	86,738	89,296	84,788	87,225	89,905	92,585
114,505	114,505	114,505	114,505	114,505	114,505	114,505	114,505
32,762	30,326	27,767	25,209	29,717	27,280	24,600	21,920
(22,895)	(25,087)	(27,280)	(25,209)	(21,189)	(23,382)	(24,600)	(21,920)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
9,867	5,239	487	0	8,528	3,898	0	0
4,934	2,620	122	0	0	0	0	0
4,933	2,619	365	0	8,528	3,898	0	0

PHOSPHORUS FACILITY SUMMARY

Spotsy Co-FMC
RAPPAHANNOCK Trading Basin



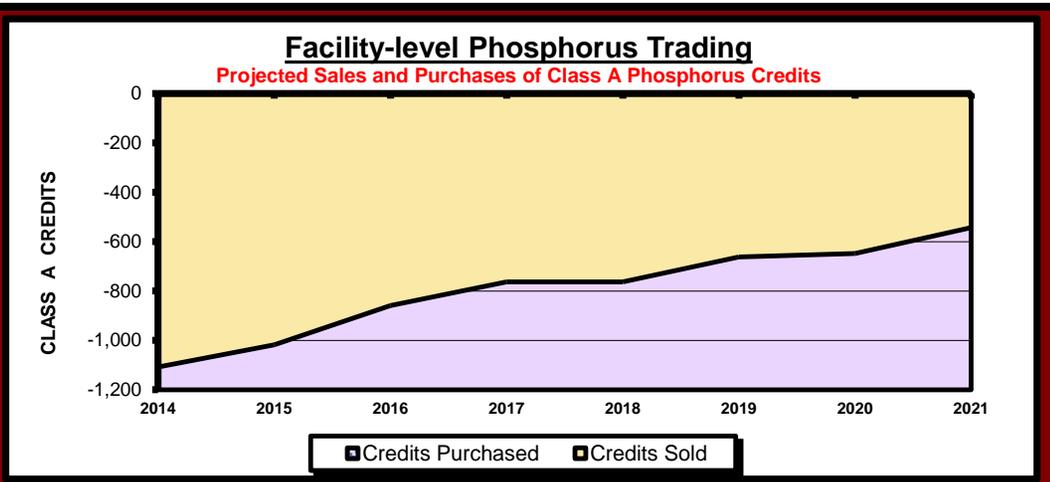
Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
2.94	3.03	3.12	3.21	2.87	2.96	3.04	3.13
0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
2,686	2,768	2,851	2,933	2,622	2,704	2,778	2,860
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2,686	2,768	2,851	2,933	2,622	2,704	2,778	2,860
3,655	3,655	3,655	3,655	3,655	3,655	3,655	3,655
969	887	804	722	1,033	951	877	795
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
969	887	804	722	1,033	951	877	795
514	472	402	365	321	274	229	181
455	415	402	357	712	677	648	614

PHOSPHORUS FACILITY SUMMARY

Spotsy Co-Massaponax
RAPPAHANNOCK Trading Basin



Loading & Credit Summary

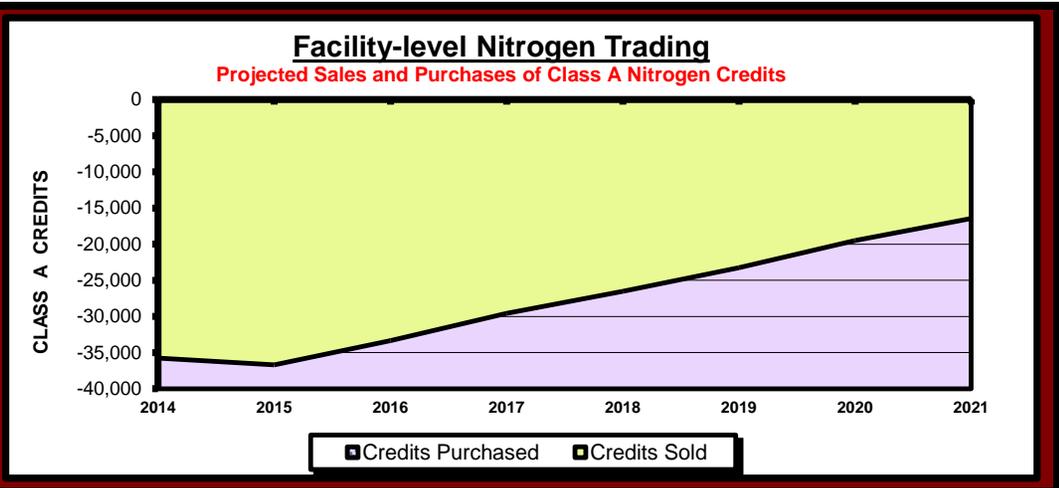
Design Flow (mgd)	8.00
Projected Flow (mgd)	6.71
Projected Avg. Annual Concentration (mg/L)	0.30
Discharged Load (end of pipe)	6,131
Delivery Factor	1.00
Expected Load	6,131
Delivered WLA*	8,405
Expected Credits (delivered)	2,274
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	2,274
Class A Credit Sales (Purchases)	1,108
Expected Class B Credits	1,166

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
6.71	6.91	7.12	7.33	6.96	7.16	7.38	7.60
0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
6,131	6,313	6,505	6,697	6,359	6,542	6,743	6,944
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
6,131	6,313	6,505	6,697	6,359	6,542	6,743	6,944
8,405	8,405	8,405	8,405	8,405	8,405	8,405	8,405
2,274	2,092	1,900	1,708	2,046	1,863	1,662	1,461
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
2,274	2,092	1,900	1,708	2,046	1,863	1,662	1,461
1,108	1,018	859	763	763	662	648	543
1,166	1,074	1,041	945	1,283	1,201	1,014	918

* Reflects allocation transfer to Rush River WWTP of 183 discharged pounds of TP throughout the planning period (assumes extension of transfer agreement beyond 2016)

NITROGEN FACILITY SUMMARY

Stafford Co-L. Falls Run
RAPPAHANNOCK Trading Basin



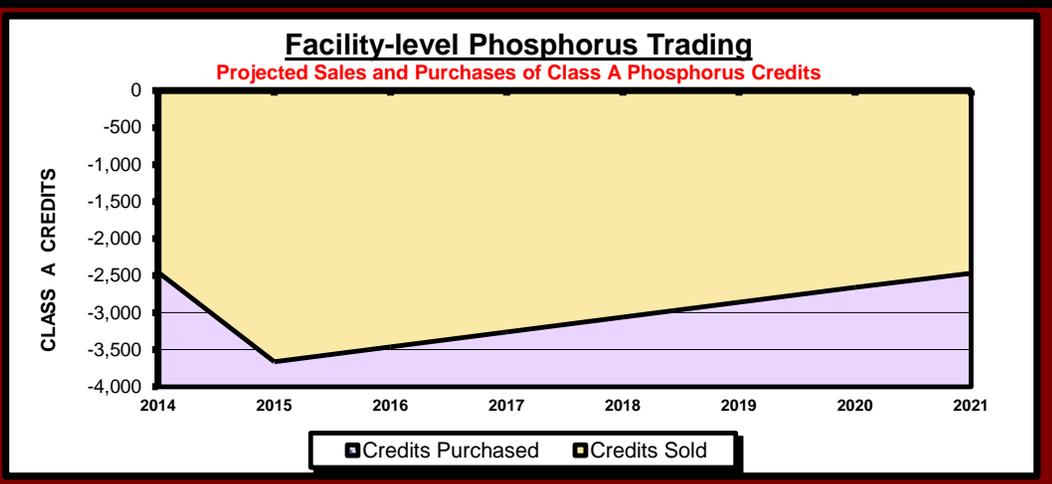
Loading & Credit Summary

Design Flow (mgd)	8.00
Projected Flow (mgd)	3.77
Projected Avg. Annual Concentration (mg/L)	5.00
Discharged Load (end of pipe)	57,409
Delivery Factor	1.00
Expected Load	57,409
Delivered WLA	97,458
Expected Credits (delivered)	40,049
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	40,049
Class A Credit Sales (Purchases)	35,762
Expected Class B Credits	4,287

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
3.77	3.99	4.21	4.43	4.65	4.87	5.09	5.30
5.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00
57,409	60,759	64,109	53,967	56,647	59,328	62,008	64,566
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
57,409	60,759	64,109	53,967	56,647	59,328	62,008	64,566
97,458	97,458	97,458	97,458	97,458	97,458	97,458	97,458
40,049	36,699	33,349	43,491	40,811	38,130	35,450	32,892
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
40,049	36,699	33,349	43,491	40,811	38,130	35,450	32,892
35,762	36,699	33,349	29,574	26,527	23,259	19,498	16,446
4,287	0	0	13,917	14,284	14,871	15,952	16,446

PHOSPHORUS FACILITY SUMMARY

Stafford Co-L. Falls Run
RAPPAHANNOCK Trading Basin



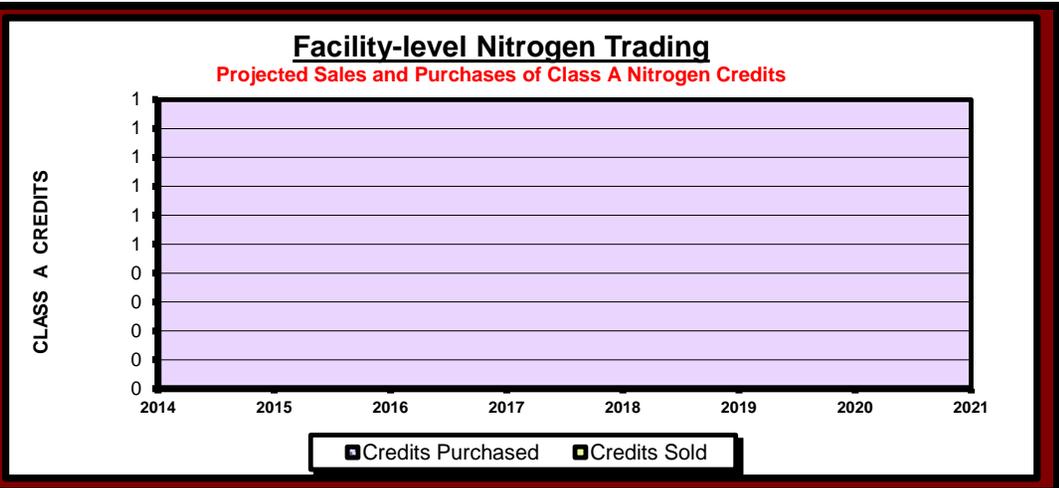
Loading & Credit Summary

Design Flow (mgd)	8.00
Projected Flow (mgd)	3.77
Projected Avg. Annual Concentration (mg/L)	0.30
Discharged Load (end of pipe)	3,445
Delivery Factor	1.00
Expected Load	3,445
Delivered WLA	7,309
Expected Credits (delivered)	3,864
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	3,864
Class A Credit Sales (Purchases)	2,453
Expected Class B Credits	1,411

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
3.77	3.99	4.21	4.43	4.65	4.87	5.09	5.30
0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
3,445	3,646	3,847	4,048	4,249	4,450	4,651	4,842
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
3,445	3,646	3,847	4,048	4,249	4,450	4,651	4,842
7,309	7,309	7,309	7,309	7,309	7,309	7,309	7,309
3,864	3,663	3,462	3,261	3,060	2,859	2,658	2,467
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
3,864	3,663	3,462	3,261	3,060	2,859	2,658	2,467
2,453	3,663	3,462	3,261	3,060	2,859	2,658	2,467
1,411	0	0	0	0	0	0	0

NITROGEN FACILITY SUMMARY

Tappahannock
RAPPAHANNOCK Trading Basin



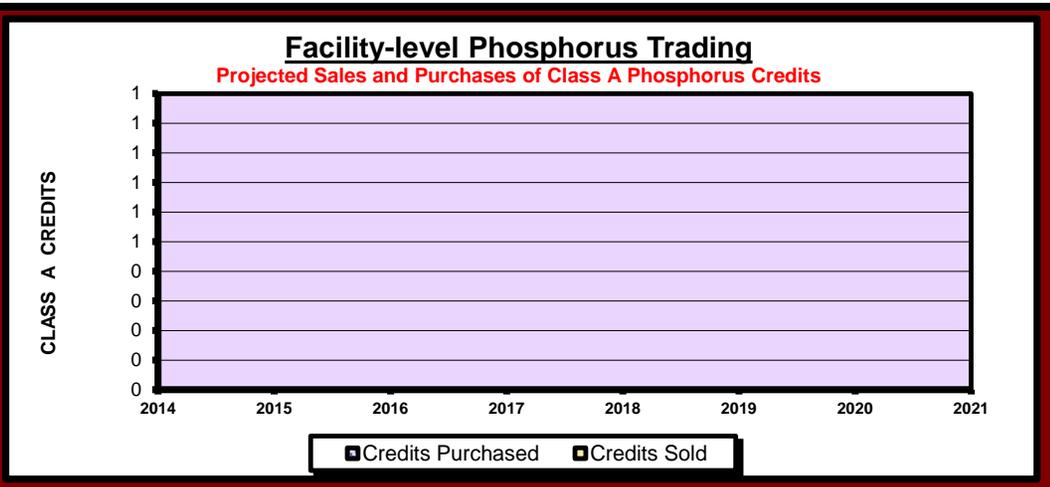
Loading & Credit Summary

Design Flow (mgd)	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Projected Flow (mgd)	0.58	0.60	0.62	0.63	0.64	0.65	0.66	0.66
Projected Avg. Annual Concentration (mg/L)	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Discharged Load (end of pipe)	7,066	7,309	7,553	7,675	7,797	7,918	8,040	8,040
Delivery Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Expected Load	7,066	7,309	7,553	7,675	7,797	7,918	8,040	8,040
Delivered WLA	9,746	9,746	9,746	9,746	9,746	9,746	9,746	9,746
Expected Credits (delivered)	2,680	2,437	2,193	2,071	1,949	1,828	1,706	1,706
Transfers In (Out) within Owner Bubble	0	0	0	0	0	0	0	0
Transfers In (Out) from Private Exchange	0	0	0	0	0	0	0	0
WQIF-Held Credits	0	0	0	0	0	0	0	0
Expected Net Credits	2,680	2,437	2,193	2,071	1,949	1,828	1,706	1,706
Class A Credit Sales (Purchases)	0							
Expected Class B Credits	2,680	2,437	2,193	2,071	1,949	1,828	1,706	1,706

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
0.58	0.60	0.62	0.63	0.64	0.65	0.66	0.66
4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
7,066	7,309	7,553	7,675	7,797	7,918	8,040	8,040
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
7,066	7,309	7,553	7,675	7,797	7,918	8,040	8,040
9,746	9,746	9,746	9,746	9,746	9,746	9,746	9,746
2,680	2,437	2,193	2,071	1,949	1,828	1,706	1,706
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
2,680	2,437	2,193	2,071	1,949	1,828	1,706	1,706
0	0	0	0	0	0	0	0
2,680	2,437	2,193	2,071	1,949	1,828	1,706	1,706

PHOSPHORUS FACILITY SUMMARY

Tappahannock
RAPPAHANNOCK Trading Basin



Loading & Credit Summary

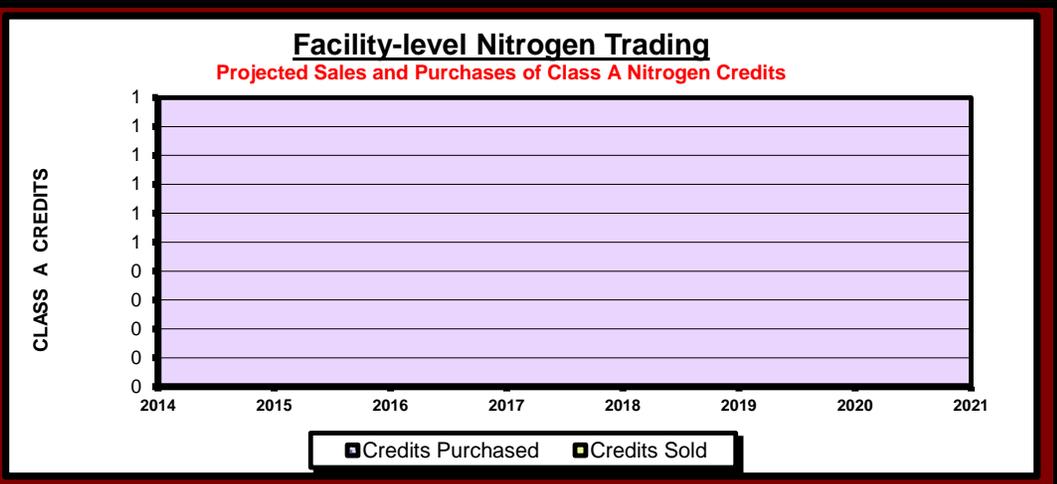
Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
0.58	0.60	0.62	0.63	0.64	0.65	0.66	0.66
0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
530	548	566	576	585	594	603	603
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
530	548	566	576	585	594	603	603
731	731	731	731	731	731	731	731
201	183	165	155	146	137	128	128
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
201	183	165	155	146	137	128	128
0	0	0	0	0	0	0	0
201	183	165	155	146	137	128	128

NITROGEN FACILITY SUMMARY

Warsaw

RAPPAHANNOCK Trading Basin



Loading & Credit Summary

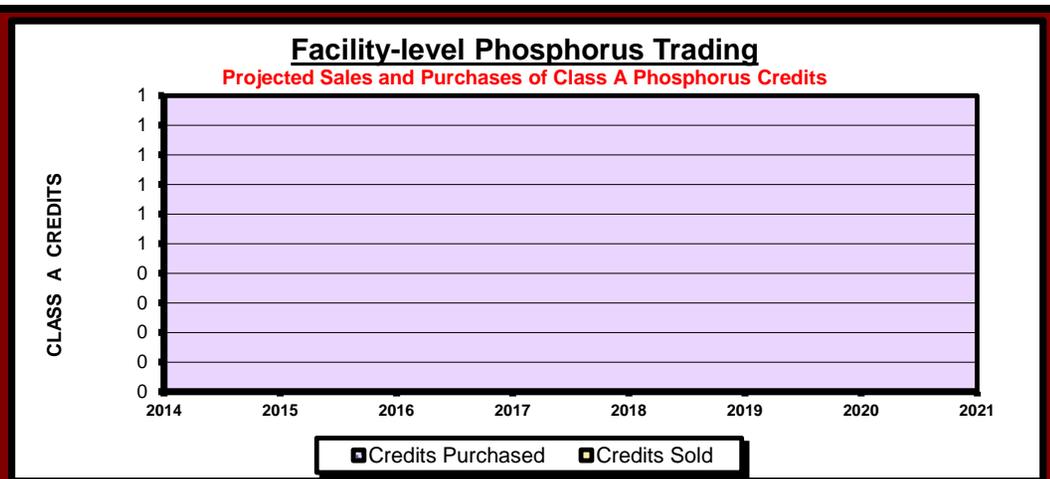
Design Flow (mgd)	0.30
Projected Flow (mgd)	0.24
Projected Avg. Annual Concentration (mg/L)	4.00
Discharged Load (end of pipe)	2,924
Delivery Factor	1.00
Expected Load	2,924
Delivered WLA	3,655
Expected Credits (delivered)	731
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	731
Class A Credit Sales (Purchases)	0
Expected Class B Credits	731

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
0.24	0.25	0.25	0.25	0.25	0.25	0.25	0.25
4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
2,924	3,046	3,046	3,046	3,046	3,046	3,046	3,046
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2,924	3,046	3,046	3,046	3,046	3,046	3,046	3,046
3,655	3,655	3,655	3,655	3,655	3,655	3,655	3,655
731	609	609	609	609	609	609	609
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
731	609	609	609	609	609	609	609
0	0	0	0	0	0	0	0
731	609	609	609	609	609	609	609

PHOSPHORUS FACILITY SUMMARY

Warsaw

RAPPAHANNOCK Trading Basin



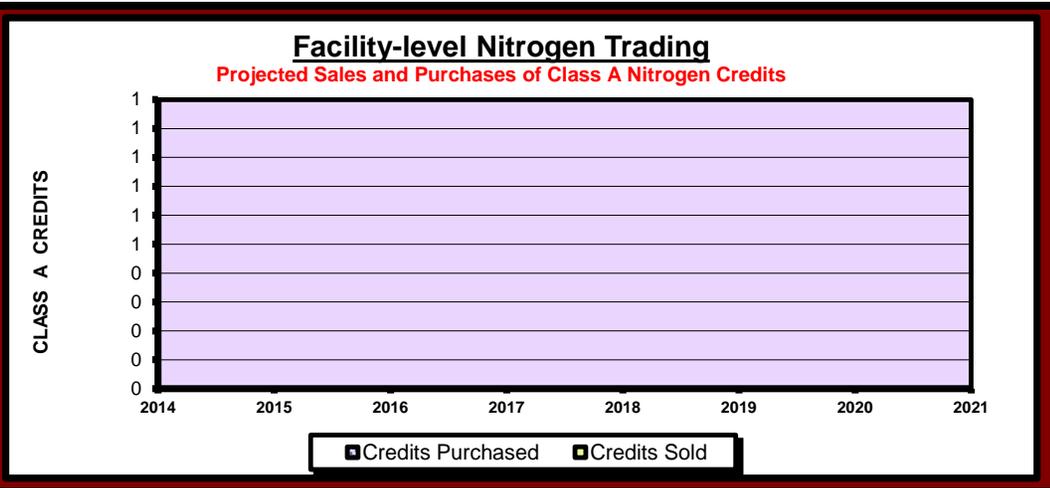
Loading & Credit Summary

Design Flow (mgd)	0.30
Projected Flow (mgd)	0.24
Projected Avg. Annual Concentration (mg/L)	0.30
Discharged Load (end of pipe)	219
Delivery Factor	1.00
Expected Load	219
Delivered WLA	274
Expected Credits (delivered)	55
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	55
Class A Credit Sales (Purchases)	0
Expected Class B Credits	55

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
0.24	0.25	0.25	0.25	0.25	0.25	0.25	0.25
0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
219	228	228	228	228	228	228	228
1.00	1.00	0.99	0.99	0.99	0.99	0.99	0.99
219	228	226	226	226	226	226	226
274	274	271	271	271	271	271	271
55	46	45	45	45	45	45	45
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
55	46	45	45	45	45	45	45
0	0	0	0	0	0	0	0
55	46	45	45	45	45	45	45

NITROGEN FACILITY SUMMARY

Westmoreland Co-Montross
RAPPAHANNOCK Trading Basin



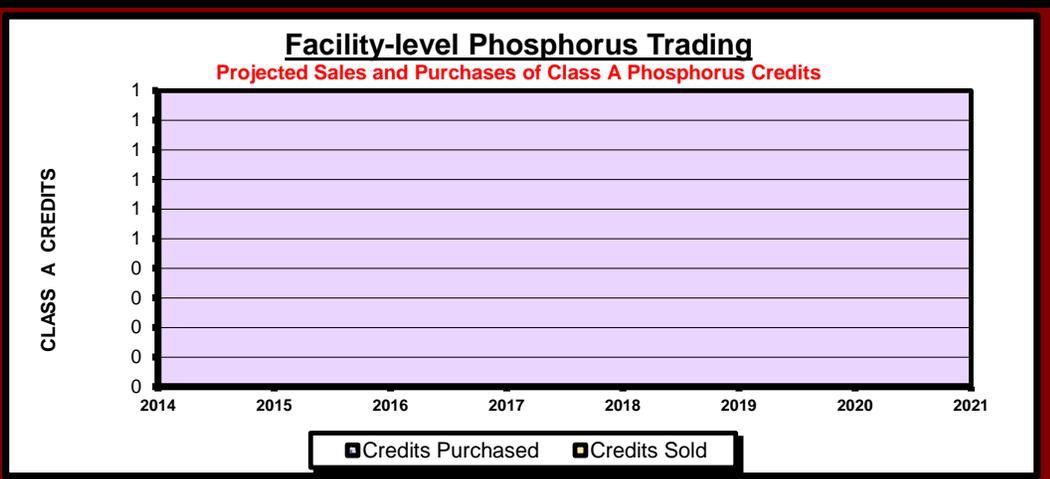
Loading & Credit Summary

Design Flow (mgd)	0.13
Projected Flow (mgd)	0.06
Projected Avg. Annual Concentration (mg/L)	4.00
Discharged Load (end of pipe)	731
Delivery Factor	1.00
Expected Load	731
Delivered WLA	1,584
Expected Credits (delivered)	853
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	853
Class A Credit Sales (Purchases)	0
Expected Class B Credits	853

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
731	731	731	731	731	731	731	731
1.00	1.00	0.74	0.74	0.74	0.74	0.74	0.74
731	731	541	541	541	541	541	541
1,584	1,584	1,172	1,172	1,172	1,172	1,172	1,172
853	853	631	631	631	631	631	631
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
853	853	631	631	631	631	631	631
0	0	0	0	0	0	0	0
853	853	631	631	631	631	631	631

PHOSPHORUS FACILITY SUMMARY

Westmoreland Co-Montross
RAPPAHANNOCK Trading Basin



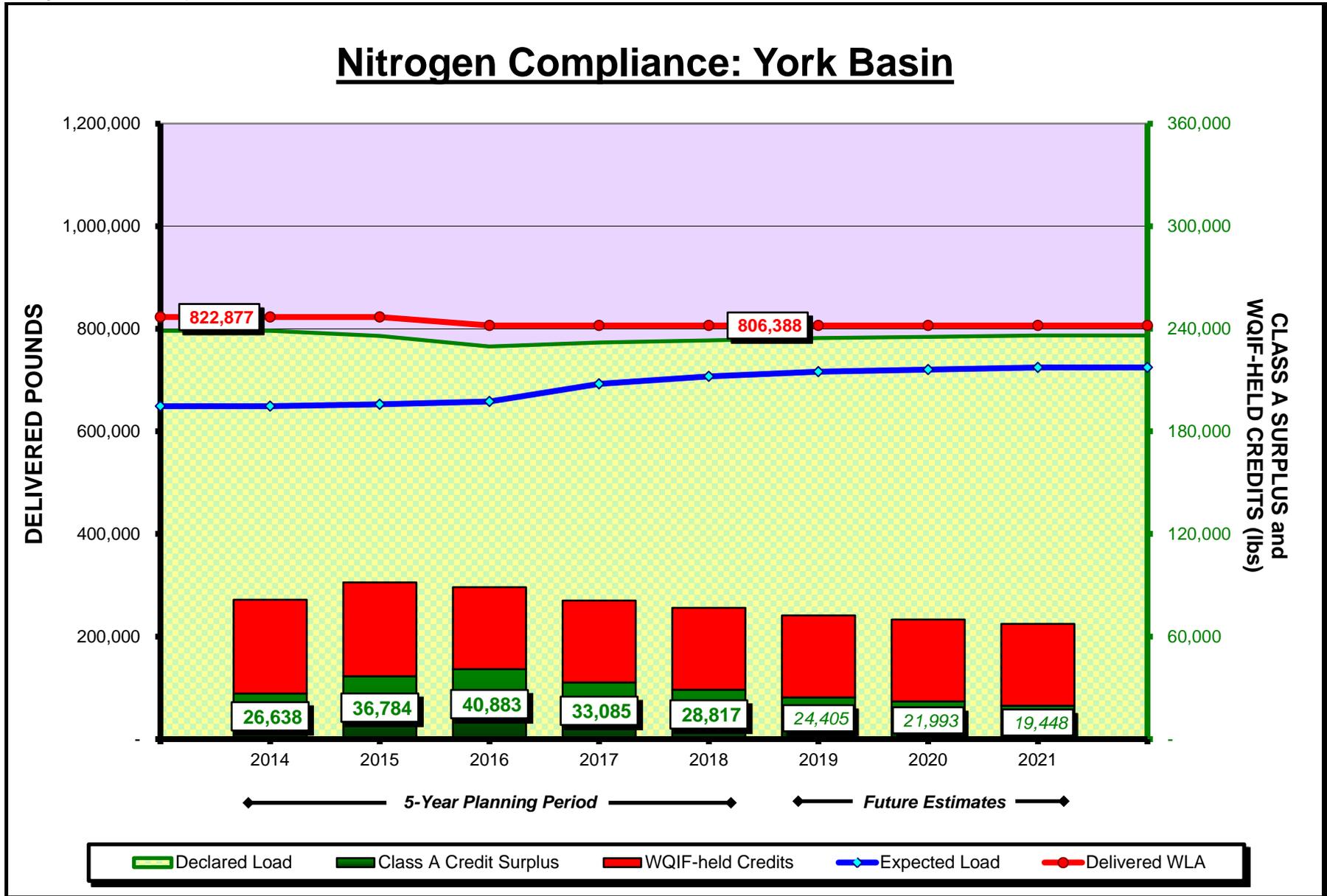
Loading & Credit Summary	
Design Flow (mgd)	
Projected Flow (mgd)	
Projected Avg. Annual Concentration (mg/L)	
Discharged Load (end of pipe)	
Delivery Factor	
Expected Load	
Delivered WLA	
Expected Credits (delivered)	
Transfers In (Out) within Owner Bubble	
Transfers In (Out) from Private Exchange	
WQIF-Held Credits	
Expected Net Credits	
Class A Credit Sales (Purchases)	
Expected Class B Credits	

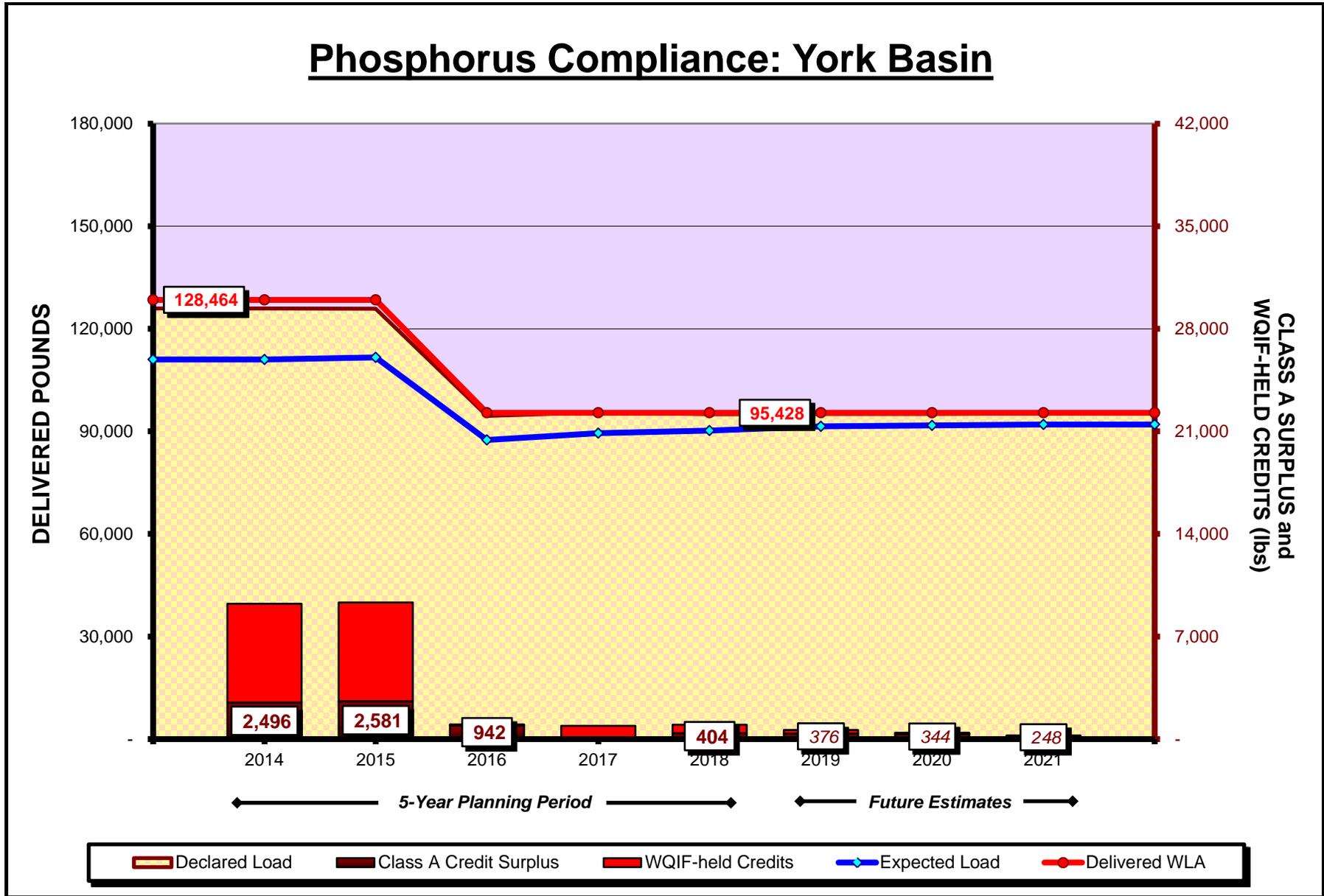
2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
91	91	91	91	91	91	91	91
1.00	1.00	0.92	0.92	0.92	0.92	0.92	0.92
91	91	84	84	84	84	84	84
119	119	109	109	109	109	109	109
28	28	25	25	25	25	25	25
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
28	28	25	25	25	25	25	25
0	0	0	0	0	0	0	0
28	28	25	25	25	25	25	25

SECTION 4

York River Basin Exchange Compliance Plan







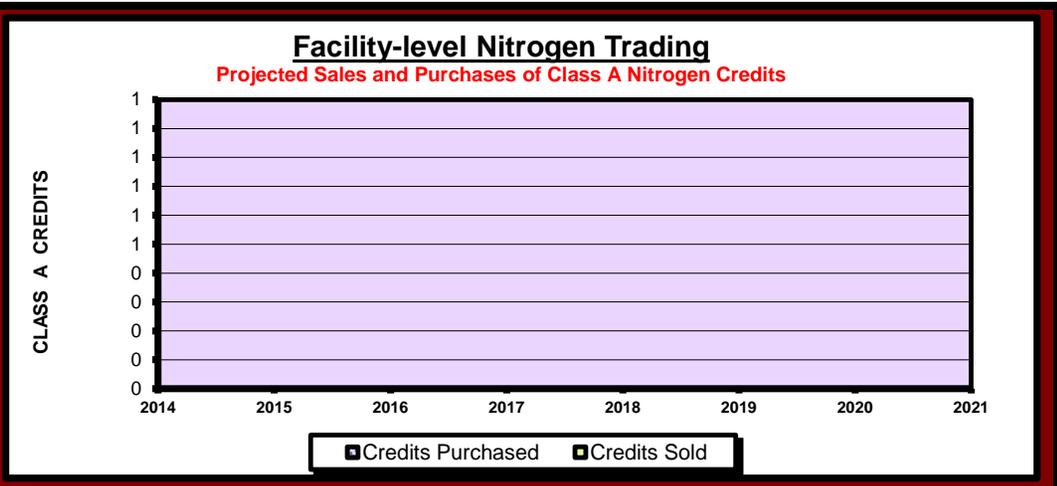
York River Basin

Supplemental Information for Individual Facilities



NITROGEN FACILITY SUMMARY

Bear Island Paper WB LLC
 YORK Trading Basin



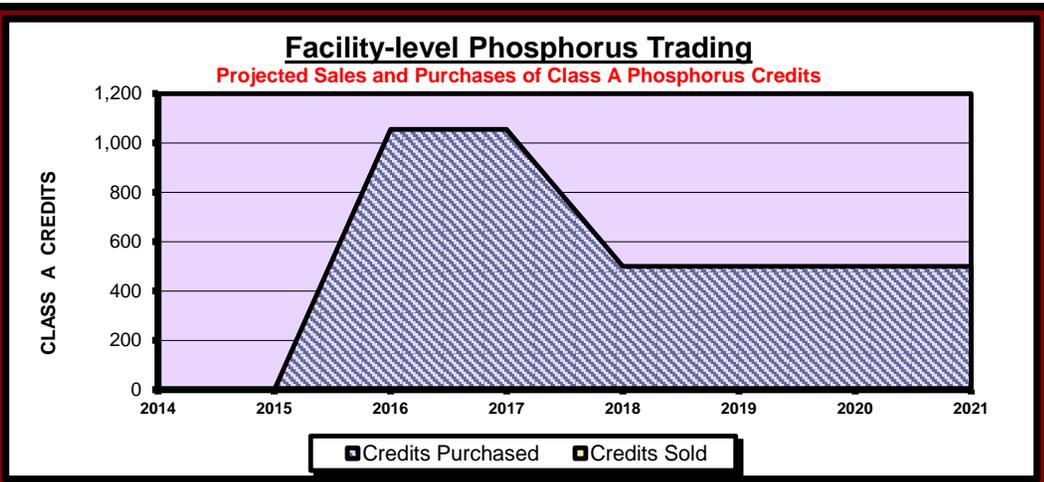
Loading & Credit Summary

Design Flow (mgd)	Projected Flow (mgd)	Projected Avg. Annual Concentration (mg/L)	Discharged Load (end of pipe)	Delivery Factor	Expected Load	Delivered WLA	Expected Credits (delivered)	Transfers In (Out) within Owner Bubble	Transfers In (Out) from Private Exchange	WQIF-Held Credits	Expected Net Credits	Class A Credit Sales (Purchases)	Expected Class B Credits
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2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
4.20	4.20	4.20	4.20	4.20	4.20	4.20	4.20
4.20	4.20	4.20	4.20	4.20	4.20	4.20	4.20
3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70
47,328	47,328	47,328	47,328	47,328	47,328	47,328	47,328
0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51
24,137	24,137	24,137	24,137	24,137	24,137	24,137	24,137
24,137	24,137	24,137	24,137	24,137	24,137	24,137	24,137
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

PHOSPHORUS FACILITY SUMMARY

Bear Island Paper WB LLC
 YORK Trading Basin



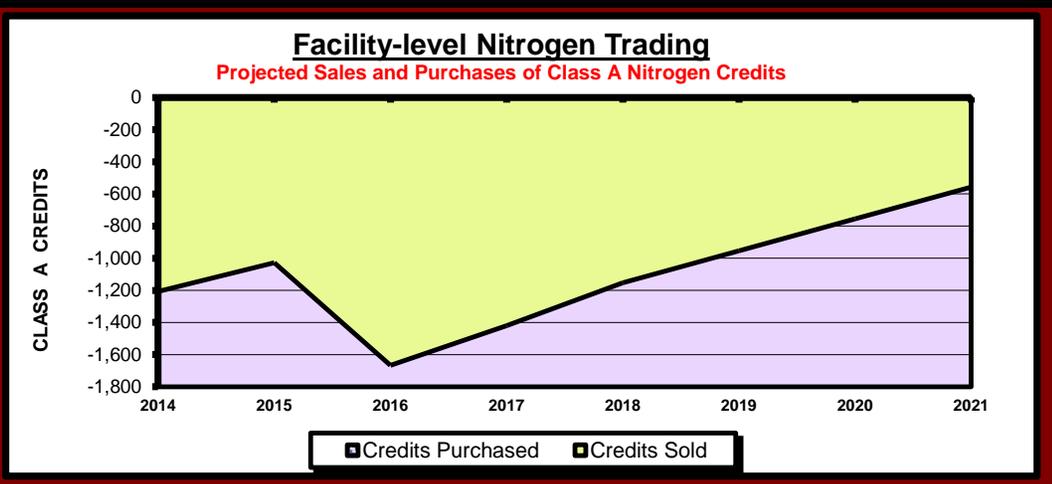
Loading & Credit Summary

Design Flow (mgd)	4.20
Projected Flow (mgd)	4.20
Projected Avg. Annual Concentration (mg/L)	1.10
Discharged Load (end of pipe)	14,070
Delivery Factor	0.60
Expected Load	8,442
Delivered WLA	7,675
Expected Credits (delivered)	(767)
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	767
WQIF-Held Credits	0
Expected Net Credits	0
Class A Credit Sales (Purchases)	0
Expected Class B Credits	0

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
4.20	4.20	4.20	4.20	4.20	4.20	4.20	4.20
4.20	4.20	4.20	4.20	4.20	4.20	4.20	4.20
1.10	1.10	0.95	0.95	0.87	0.87	0.87	0.87
14,070	14,070	12,152	12,152	11,141	11,141	11,141	11,141
0.60	0.60	0.55	0.55	0.55	0.55	0.55	0.55
8,442	8,442	6,683	6,683	6,128	6,128	6,128	6,128
7,675	7,675	5,628	5,628	5,628	5,628	5,628	5,628
(767)	(767)	(1,055)	(1,055)	(500)	(500)	(500)	(500)
0	0	0	0	0	0	0	0
767	767	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	(1,055)	(1,055)	(500)	(500)	(500)	(500)
0	0	(1,055)	(1,055)	(500)	(500)	(500)	(500)
0	0	0	0	0	0	0	0

NITROGEN FACILITY SUMMARY

Caroline Co.
 YORK Trading Basin



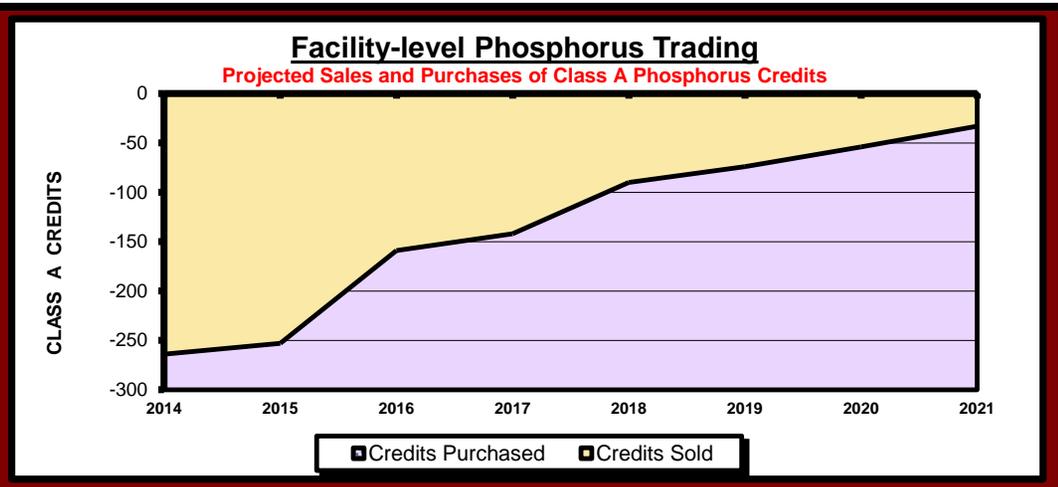
Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
0.52	0.57	0.52	0.57	0.71	0.76	0.81	0.86
3.50	3.50	3.50	3.50	3.00	3.00	3.00	3.00
5,543	6,076	5,543	6,076	6,487	6,944	7,401	7,858
0.42	0.42	0.58	0.58	0.58	0.58	0.58	0.58
2,328	2,552	3,215	3,524	3,762	4,027	4,292	4,557
3,837	3,837	5,299	5,299	5,299	5,299	5,299	5,299
1,509	1,285	2,084	1,775	1,537	1,272	1,007	742
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
1,509	1,285	2,084	1,775	1,537	1,272	1,007	742
1,207	1,028	1,667	1,420	1,153	954	755	557
302	257	417	355	384	318	252	185

PHOSPHORUS FACILITY SUMMARY

Caroline Co.
 YORK Trading Basin



Loading & Credit Summary

Design Flow (mgd)	1.50
Projected Flow (mgd)	0.52
Projected Avg. Annual Concentration (mg/L)	0.20
Discharged Load (end of pipe)	317
Delivery Factor	0.44
Expected Load	139
Delivered WLA	469
Expected Credits (delivered)	330
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	330
Class A Credit Sales (Purchases)	264
Expected Class B Credits	66

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
0.52	0.57	0.52	0.57	0.71	0.76	0.81	0.86
0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
317	347	317	347	432	463	493	524
0.44	0.44	0.68	0.68	0.68	0.68	0.68	0.68
139	153	215	236	294	315	335	356
469	469	414	414	414	414	414	414
330	316	199	178	120	99	79	58
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
330	316	199	178	120	99	79	58
264	253	159	142	90	74	54	33
66	63	40	36	30	25	25	25

**COMPLIANCE STATEMENT FOR FACILITIES SUBJECT TO REDUCED
WASTELOAD ALLOCATIONS IN CHESAPEAKE BAY TMDL**

Facility (Or Owner Bubble) Name: Caroline County Regional STP

Check One:

- James River TN Compliance
 York River TP Compliance

Compliance Information Required by 9 VAC 25-820-40 A 2 (Check Option 1 or Option 2)

Option 1 (9 VAC 25-820-40 A 2 b): Permittee hereby requests WLA to be effective as of January 1, 2012.

Option 2 (9 VAC 25-820-40 A 2 a): Additional capital project(s) is needed to ensure continued compliance with the WLA through the applicable compliance schedule deadline for the tributary. (Note: Checking Option 2 does not preclude use of credit purchase as means of compliance under II.B.)

If Option 2 is checked, briefly describe need for additional projects:

Additional capital project(s) is need to ensure continued compliance.

Implementation Schedule

1. Does permittee anticipate using credit purchase to comply?
 NO YES

2. Is permittee implementing a capital project to comply?
 NO YES
(If YES, compliance is required as soon as possible but no later than the applicable tributary compliance schedule deadline.)

3. Capital Project Milestone Schedule (Specify estimated date for each milestone. For bubbles, specify facility name(s) and list multiple facility schedules if applicable.)

Engineer selection	<u>Completed</u>
PER/CER to DEQ	<u>Completed</u>
Plans & Specifications to DEQ	<u>Completed</u>
Commence construction	<u>Completed</u>
Complete construction	<u>January 2014</u>
CTO Request to DEQ (POTWs only)	<u>December 2013</u>

Owner Bubble: Hanover County

The facilities listed below have received an aggregated mass load limit pursuant to 9 VAC 25-820-70, Part 1.B.2., which is also referred to as an “owner bubble”. Accordingly, compliance is determined solely on an aggregate basis rather than by comparison of individual facility loads with respective individual WLAs.

The “Credit Transferred within Bubble” section of each table forecasts the use of Credits within the owner bubble during each Compliance Year, and must necessarily sum to zero. The specific Credit transfers shown in this table are provided for internal planning purposes only and, accordingly, are not binding and may change based on the actual performance of individual facilities within the bubble.

Expected Net Credits for an owner bubble may be either positive or negative. If Expected Net Credits is positive, the owner may pledge a percentage of such Credits to the Exchange. If Expected Net Credits is negative, Net Expected Credits identifies the number of Credits that must be purchased to comply with the aggregate Delivered WLA of the bubble.

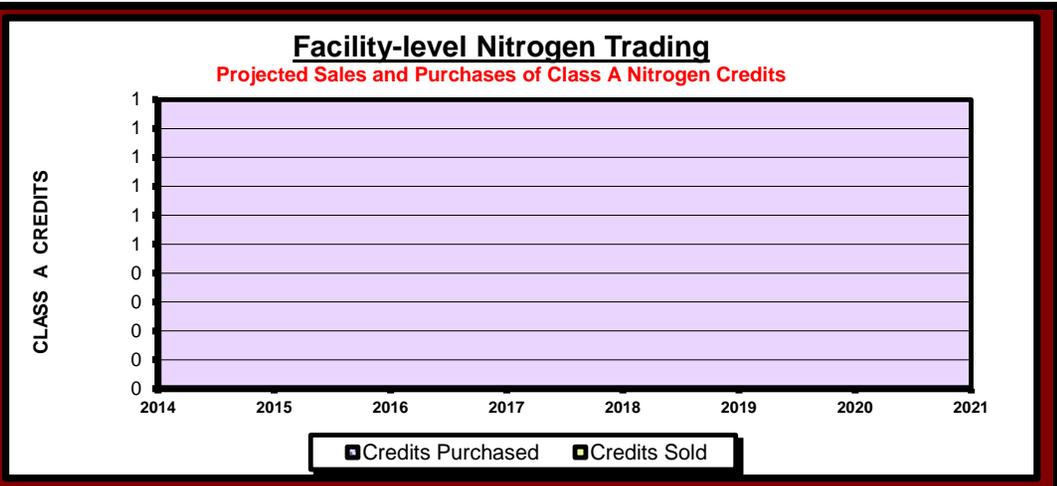
NITROGEN Credits	Exchange 5-year Planning Period					Future Projections		
	2014	2015	2016	2017	2018	2019	2020	2021
Credits Transferred within Bubble								
Ashland	9,219	10,095	13,337	14,402	15,467	16,745	16,745	16,745
Doswell	3,322	3,726	4,602	4,887	5,598	5,954	6,310	6,666
Totopotomoy	(12,541)	(13,821)	(17,939)	(19,289)	(21,065)	(22,699)	(23,055)	(23,411)
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
TOTAL (must sum to 0)	-	-	-	-	-	-	-	-
Credits Available outside Bubble								
Ashland	-	-	-	-	-	-	-	-
Doswell	-	-	-	-	-	-	-	-
Totopotomoy	41,061	37,589	24,667	21,198	17,302	13,548	11,073	8,597
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Expected Net Credits	41,061	37,589	24,667	21,198	17,302	13,548	11,073	8,597
Class A Sales (Purchases)	13,462	22,964	20,000	20,000	16,000	12,000	10,000	8,000
<i>Expected Class B Credits</i>	27,599	14,625	4,667	1,198	1,302	1,548	1,073	597
<i>WQIF-Held Credits</i>	54,820	54,820	47,694	47,694	47,694	47,694	47,694	47,694

PHOSPHORUS Credits	Exchange 5-year Planning Period					Future Projections		
	2014	2015	2016	2017	2018	2019	2020	2021
Credits Transferred within Bubble								
Ashland	4,531	4,754	3,472	3,615	3,757	3,928	3,928	3,859
Doswell	(46)	(6)	532	554	611	640	668	697
Totopotomoy	(4,485)	(4,748)	(4,004)	(4,169)	(4,368)	(4,568)	(4,596)	(4,556)
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
TOTAL (must sum to 0)	-	-	-	-	-	-	-	-
Credits Available outside Bubble								
Ashland	-	-	-	-	-	-	-	(69)
Doswell	-	-	-	-	-	-	-	-
Totopotomoy	1,149	612	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Expected Net Credits	1,149	612	-	-	-	-	-	(69)
Class A Sales (Purchases)	0	0	0	0	0	0	0	(69)
<i>Expected Class B Credits</i>	1,149	612	0	0	0	0	0	0
<i>WQIF-Held Credits</i>	6,396	6,396	57	903	575	246	89	0

NITROGEN FACILITY SUMMARY

Hanover Co-Ashland

YORK Trading Basin



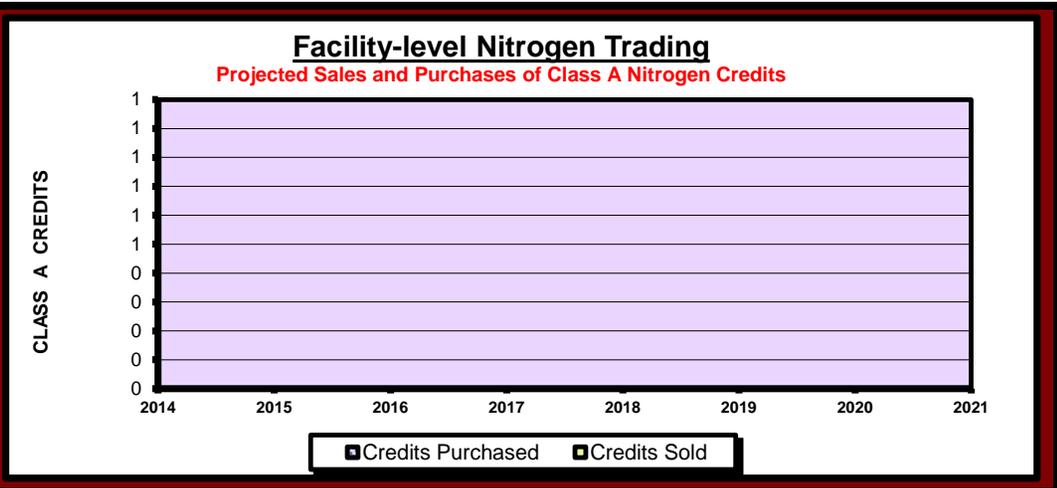
Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

	2014	2015	2016	2017	2018	2019	2020	2021
	Planning Period					Future Estimates (non-binding)		
Design Flow (mgd)	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Projected Flow (mgd)	1.59	1.64	1.69	1.74	1.79	1.85	1.85	1.85
Projected Avg. Annual Concentration (mg/L)	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28
Discharged Load (end of pipe)	54,623	56,340	58,058	59,776	61,494	63,555	63,555	63,555
Delivery Factor	0.51	0.51	0.62	0.62	0.62	0.62	0.62	0.62
Expected Load	27,858	28,734	35,996	37,061	38,126	39,404	39,404	39,404
Delivered WLA	18,639	18,639	22,659	22,659	22,659	22,659	22,659	22,659
Expected Credits (delivered)	(9,219)	(10,095)	(13,337)	(14,402)	(15,467)	(16,745)	(16,745)	(16,745)
Transfers In (Out) within Owner Bubble	9,219	10,095	13,337	14,402	15,467	16,745	16,745	16,745
Transfers In (Out) from Private Exchange	0	0	0	0	0	0	0	0
WQIF-Held Credits	0	0	0	0	0	0	0	0
Expected Net Credits	0	0	0	0	0	0	0	0
Class A Credit Sales (Purchases)	0	0	0	0	0	0	0	0
Expected Class B Credits	0	0	0	0	0	0	0	0

NITROGEN FACILITY SUMMARY

Hanover Co-Doswell
 YORK Trading Basin



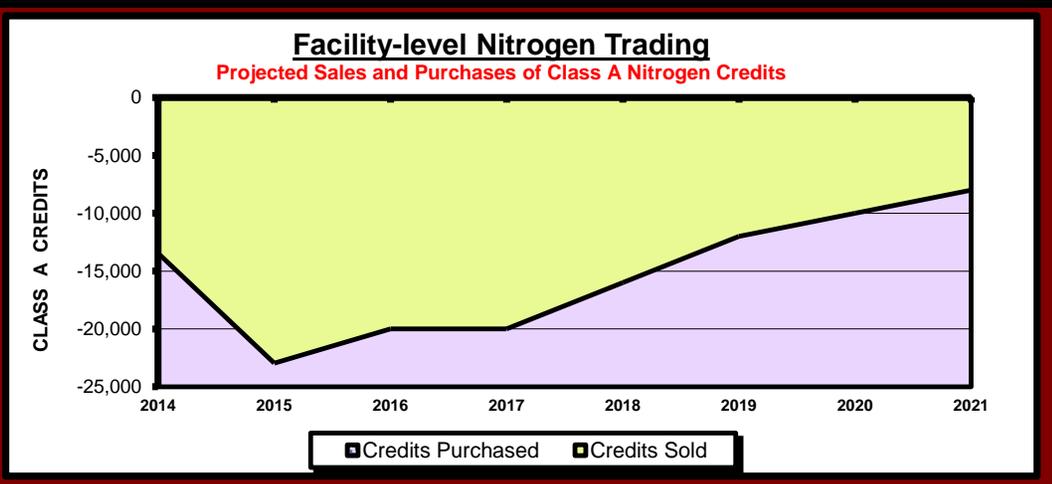
Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
0.40	0.41	0.42	0.43	0.45	0.46	0.47	0.48
20.50	20.50	20.50	20.50	20.50	20.50	20.50	20.50
24,786	25,579	26,347	26,847	28,095	28,720	29,344	29,968
0.51	0.51	0.57	0.57	0.57	0.57	0.57	0.57
12,641	13,045	15,018	15,303	16,014	16,370	16,726	17,082
9,319	9,319	10,416	10,416	10,416	10,416	10,416	10,416
(3,322)	(3,726)	(4,602)	(4,887)	(5,598)	(5,954)	(6,310)	(6,666)
3,322	3,726	4,602	4,887	5,598	5,954	6,310	6,666
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

NITROGEN FACILITY SUMMARY

Hanover Co-Totopotomoy
 YORK Trading Basin

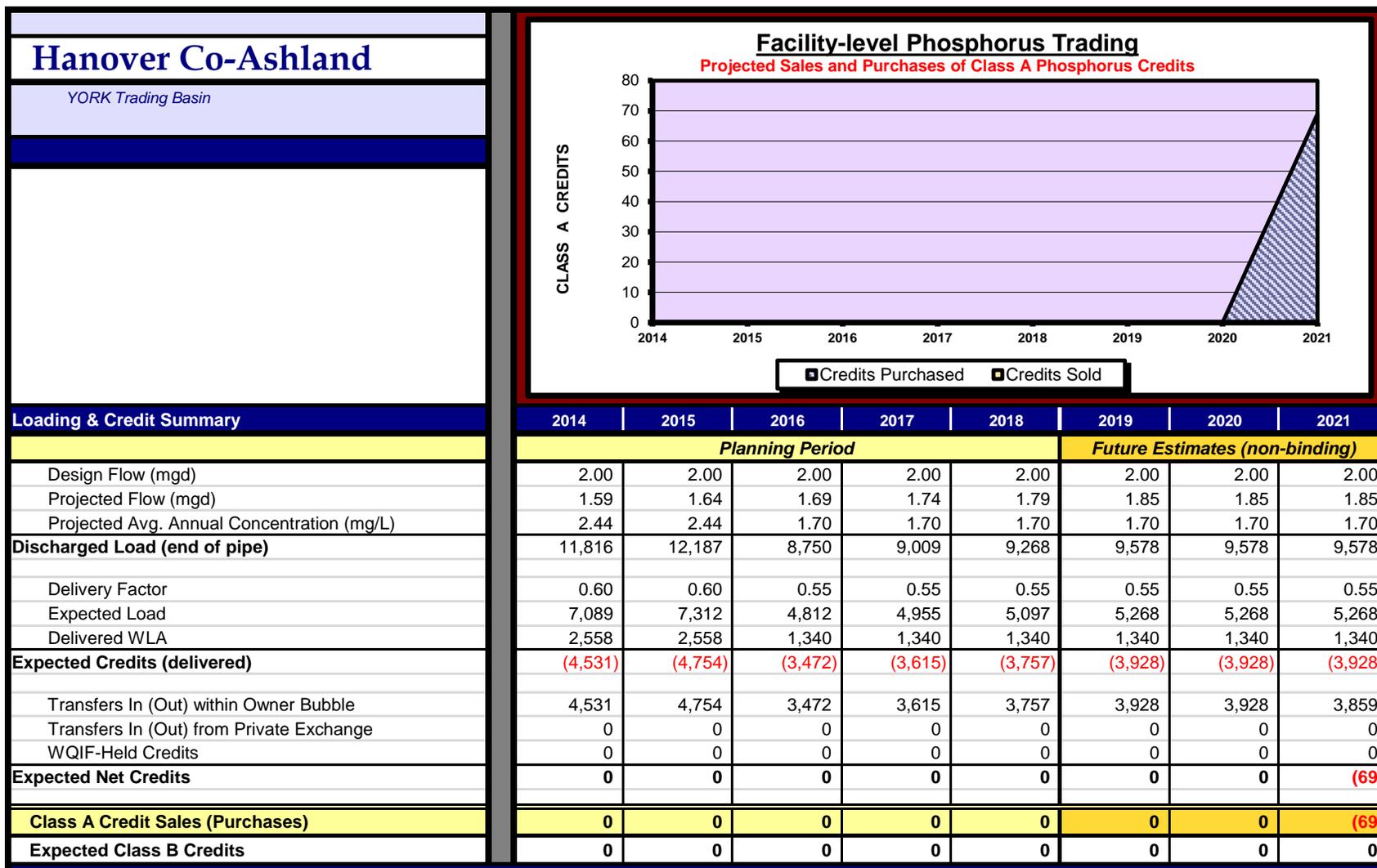


Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

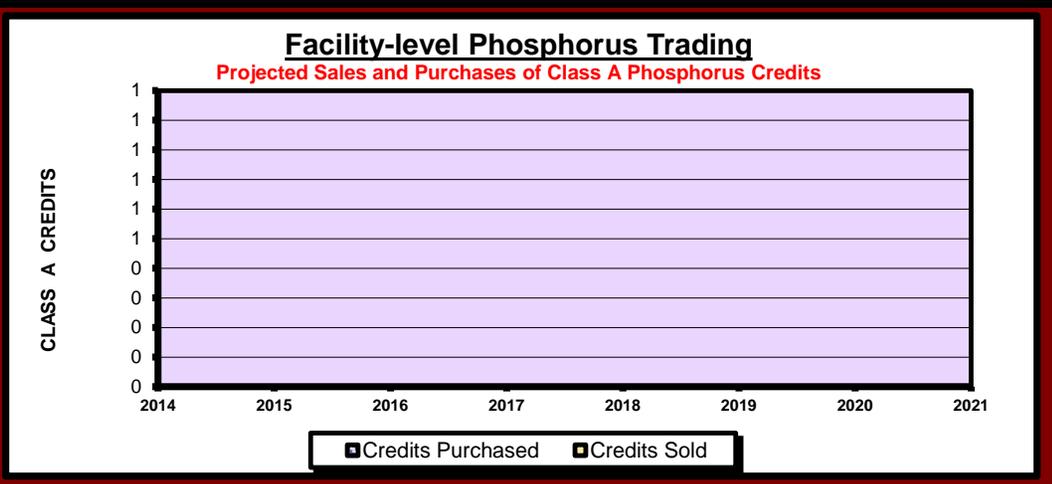
2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
3.05	3.14	3.24	3.34	3.44	3.54	3.64	3.74
8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
74,312	76,504	78,941	81,377	83,814	86,250	88,687	91,123
1.00	1.00	0.87	0.87	0.87	0.87	0.87	0.87
74,312	76,504	68,679	70,798	72,918	75,038	77,157	79,277
182,734	182,734	158,979	158,979	158,979	158,979	158,979	158,979
108,422	106,230	90,300	88,181	86,061	83,941	81,822	79,702
(12,541)	(13,821)	(17,939)	(19,289)	(21,065)	(22,699)	(23,055)	(23,411)
0	0	0	0	0	0	0	0
(54,820)	(54,820)	(47,694)	(47,694)	(47,694)	(47,694)	(47,694)	(47,694)
41,061	37,589	24,667	21,198	17,302	13,548	11,073	8,597
13,462	22,964	20,000	20,000	16,000	12,000	10,000	8,000
27,599	14,625	4,667	1,198	1,302	1,548	1,073	597

PHOSPHORUS FACILITY SUMMARY



PHOSPHORUS FACILITY SUMMARY

Hanover Co-Doswell
 YORK Trading Basin



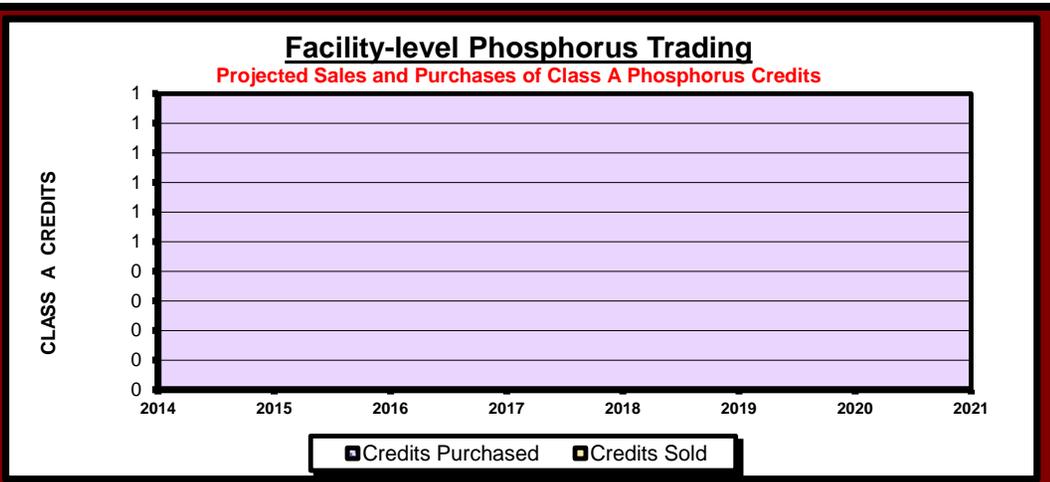
Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
0.40	0.41	0.42	0.43	0.45	0.46	0.47	0.48
1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70
2,055	2,121	2,185	2,226	2,330	2,382	2,433	2,485
0.60	0.60	0.55	0.55	0.55	0.55	0.55	0.55
1,233	1,273	1,202	1,224	1,281	1,310	1,338	1,367
1,279	1,279	670	670	670	670	670	670
46	6	(532)	(554)	(611)	(640)	(668)	(697)
(46)	(6)	532	554	611	640	668	697
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

PHOSPHORUS FACILITY SUMMARY

Hanover Co-Totopotomoy
 YORK Trading Basin



Loading & Credit Summary

Design Flow (mgd)	7.00
Projected Flow (mgd)	3.05
Projected Avg. Annual Concentration (mg/L)	1.00
Discharged Load (end of pipe)	9,289
Delivery Factor	1.00
Expected Load	9,289
Delivered WLA	21,319
Expected Credits (delivered)	12,030
Transfers In (Out) within Owner Bubble	(4,485)
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	(6,396)
Expected Net Credits	1,149
Class A Credit Sales (Purchases)	0
Expected Class B Credits	1,149

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
3.05	3.14	3.24	3.34	3.44	3.54	3.64	3.74
1.00	1.00	0.70	0.55	0.55	0.55	0.55	0.55
9,289	9,563	6,907	5,595	5,762	5,930	6,097	6,265
1.00	1.00	0.77	0.77	0.77	0.77	0.77	0.77
9,289	9,563	5,319	4,308	4,437	4,566	4,695	4,824
21,319	21,319	9,380	9,380	9,380	9,380	9,380	9,380
12,030	11,756	4,061	5,072	4,943	4,814	4,685	4,556
(4,485)	(4,748)	(4,004)	(4,169)	(4,368)	(4,568)	(4,596)	(4,556)
0	0	0	0	0	0	0	0
(6,396)	(6,396)	(57)	(903)	(575)	(246)	(89)	0
1,149	612	0	0	0	0	0	0
0	0	0	0	0	0	0	0
1,149	612	0	0	0	0	0	0

**COMPLIANCE STATEMENT FOR FACILITIES SUBJECT TO REDUCED
WASTELOAD ALLOCATIONS IN CHESAPEAKE BAY TMDL**

Facility (Or Owner Bubble) Name: Hanover County DRAFT

Check One:

- James River TN Compliance
 York River TP Compliance

Compliance Information Required by 9 VAC 25-820-40 A 2 (Check Option 1 or Option 2)

Option 1 (9 VAC 25-820-40 A 2 b): Permittee hereby requests WLA to be effective as of January 1, 2012.

Option 2 (9 VAC 25-820-40 A 2 a): Additional capital project(s) is needed to ensure continued compliance with the WLA through the applicable compliance schedule deadline for the tributary. (Note: Checking Option 2 does not preclude use of credit purchase as means of compliance under II.B.)

If Option 2 is checked, briefly describe need for additional projects:

The allocation for phosphorous was greatly reduced in 2012 for the York River Basin; consequently, additional facilities will need to be constructed at the Totopotomoy WWTP to trim phosphorous loading starting in 2016. Note that nutrient upgrades at the Ashland WWTP have been postponed; this should not impact the ability of Hanover County to continue WLA compliance.

Implementation Schedule

1. Does permittee anticipate using credit purchase to comply?
 NO YES

2. Is permittee implementing a capital project to comply?
 NO YES
(If YES, compliance is required as soon as possible but no later than the applicable tributary compliance schedule deadline.)

3. Capital Project Milestone Schedule (Specify estimated date for each milestone. For bubbles, specify facility name(s) and list multiple facility schedules if applicable.)

Ashland WWTP

Nutrient upgrade has been postponed

Totopotomoy WWTP

Engineer selection

PER/CER to DEQ

Plans & Specifications to DEQ

Commence construction

Complete construction

CTO Request to DEQ (POTWs only)

Hazen & Sawyer

Complete

Complete (waiting on final approval letter from the DEQ)

February 2014

March 2015

March 2015

Owner Bubble: Hampton Roads Sanitation District (York)

The facilities listed below have received an aggregated mass load limit pursuant to 9 VAC 25-820-70, Part 1.B.2., which is also referred to as an “owner bubble”. Accordingly, compliance is determined solely on an aggregate basis rather than by comparison of individual facility loads with respective individual WLAs.

The “Credit Transferred within Bubble” section of each table forecasts the use of Credits within the owner bubble during each Compliance Year, and must necessarily sum to zero. The specific Credit transfers shown in this table are provided for internal planning purposes only and, accordingly, are not binding and may change based on the actual performance of individual facilities within the bubble.

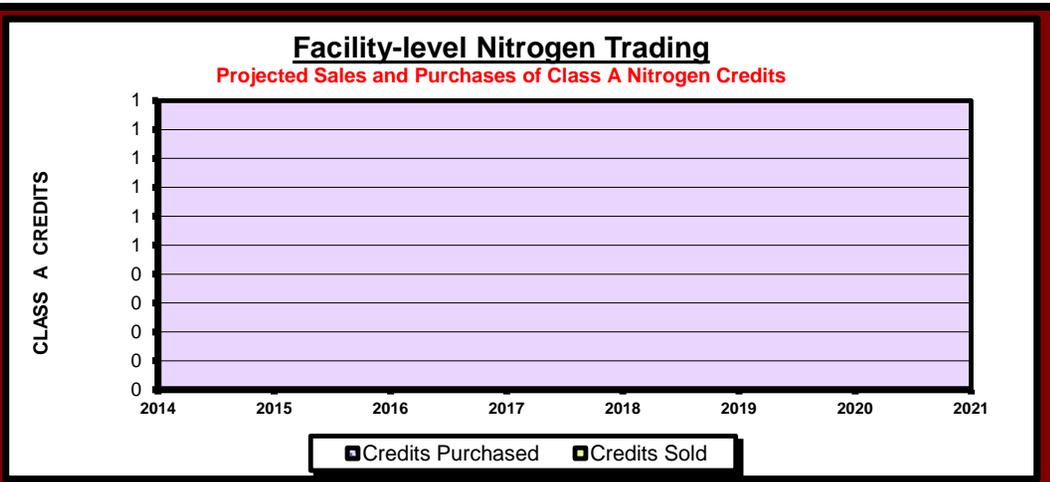
Expected Net Credits for an owner bubble may be either positive or negative. If Expected Net Credits is positive, the owner may pledge a percentage of such Credits to the Exchange. If Expected Net Credits is negative, Net Expected Credits identifies the number of Credits that must be purchased to comply with the aggregate Delivered WLA of the bubble.

NITROGEN Credits	Exchange 5-year Planning Period					Future Projections		
	2014	2015	2016	2017	2018	2019	2020	2021
Credits Transferred within Bubble								
King William	(1,094)	(1,089)	(1,084)	(1,027)	(1,032)	(1,029)	(1,027)	(1,025)
West Point	9,509	9,823	10,142	13,648	11,225	11,358	11,491	11,385
York	(8,415)	(8,734)	(9,058)	(12,621)	(10,193)	(10,329)	(10,464)	(10,360)
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
TOTAL (must sum to 0)	-	-	-	-	-	-	-	-
Credits Available outside Bubble								
King William	-	-	-	-	-	-	-	-
West Point	-	-	-	-	-	-	-	(240)
York	43,175	41,155	39,116	9,368	2,752	1,757	760	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Expected Net Credits	43,175	41,155	39,116	9,368	2,752	1,757	760	(240)
Class A Sales (Purchases)	0	0	0	0	0	0	0	(240)
<i>Expected Class B Credits</i>	43,175	41,155	39,116	9,368	2,752	1,757	760	0
<i>WQIF-Held Credits</i>	0	0	0	0	0	0	0	0

PHOSPHORUS Credits	Exchange 5-year Planning Period					Future Projections		
	2014	2015	2016	2017	2018	2019	2020	2021
Credits Transferred within Bubble								
King William	(165)	(165)	(165)	(160)	(161)	(160)	(160)	(160)
West Point	1,488	1,530	2,121	3,488	3,073	3,096	3,118	3,141
York	(1,323)	(1,365)	(1,956)	(3,328)	(2,912)	(2,936)	(2,958)	(2,981)
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
TOTAL (must sum to 0)	-	-	-	-	-	-	-	-
Credits Available outside Bubble								
King William	-	-	-	-	-	-	-	-
West Point	-	-	-	-	-	-	-	-
York	4,695	4,455	5,051	556	455	382	311	239
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Expected Net Credits	4,695	4,455	5,051	556	455	382	311	239
Class A Sales (Purchases)	0	0	0	0	0	0	0	0
<i>Expected Class B Credits</i>	4,695	4,455	5,051	556	455	382	311	239
<i>WQIF-Held Credits</i>	0	0	0	0	0	0	0	0

NITROGEN FACILITY SUMMARY

HRSD-King William
 YORK Trading Basin



Loading & Credit Summary

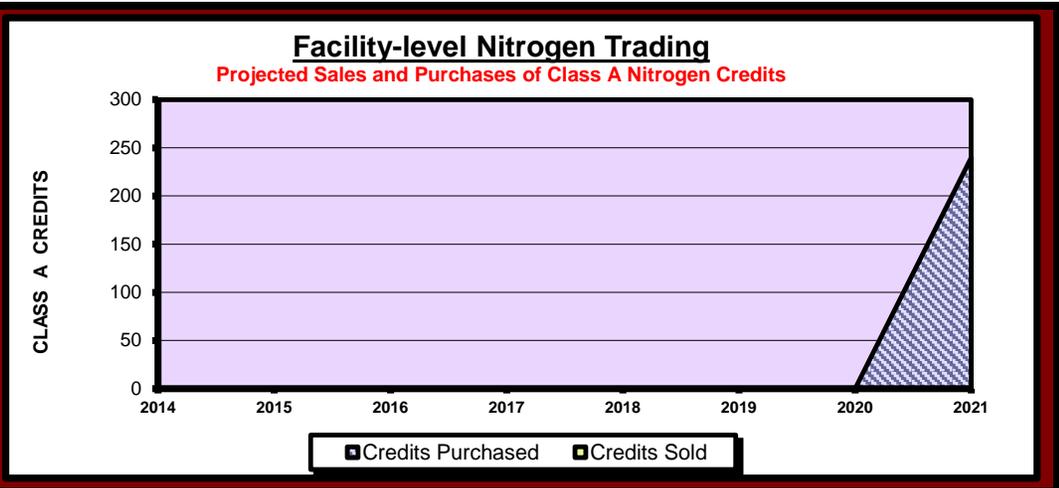
Design Flow (mgd)	0.10
Projected Flow (mgd)	0.03
Projected Avg. Annual Concentration (mg/L)	4.00
Discharged Load (end of pipe)	330
Delivery Factor	1.00
Expected Load	330
Delivered WLA	1,424
Expected Credits (delivered)	1,094
Transfers In (Out) within Owner Bubble	(1,094)
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	0
Class A Credit Sales (Purchases)	0
Expected Class B Credits	0

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
330	335	340	397	392	395	397	399
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
330	335	340	397	392	395	397	399
1,424	1,424	1,424	1,424	1,424	1,424	1,424	1,424
1,094	1,089	1,084	1,027	1,032	1,029	1,027	1,025
(1,094)	(1,089)	(1,084)	(1,027)	(1,032)	(1,029)	(1,027)	(1,025)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

NITROGEN FACILITY SUMMARY

HRSD-West Point

YORK Trading Basin



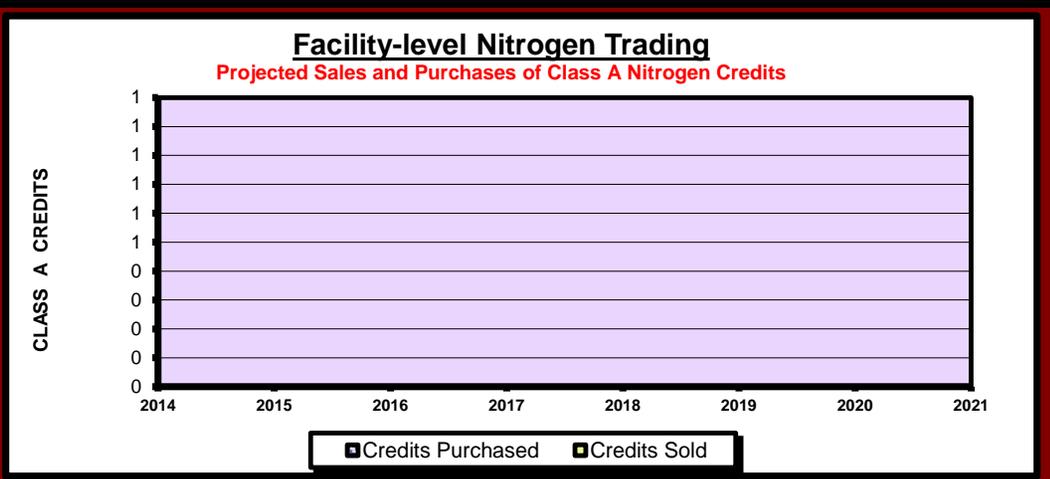
Loading & Credit Summary

Design Flow (mgd)	0.60
Projected Flow (mgd)	0.45
Projected Avg. Annual Concentration (mg/L)	14.80
Discharged Load (end of pipe)	20,473
Delivery Factor	1.00
Expected Load	20,473
Delivered WLA	10,964
Expected Credits (delivered)	(9,509)
Transfers In (Out) within Owner Bubble	9,509
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	0
Class A Credit Sales (Purchases)	0
Expected Class B Credits	0

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
0.45	0.46	0.47	0.46	0.42	0.42	0.42	0.42
14.80	14.80	14.80	17.50	17.50	17.50	17.50	17.50
20,473	20,787	21,106	24,612	22,189	22,322	22,455	22,589
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
20,473	20,787	21,106	24,612	22,189	22,322	22,455	22,589
10,964	10,964	10,964	10,964	10,964	10,964	10,964	10,964
(9,509)	(9,823)	(10,142)	(13,648)	(11,225)	(11,358)	(11,491)	(11,625)
9,509	9,823	10,142	13,648	11,225	11,358	11,491	11,385
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	(240)
0	0	0	0	0	0	0	(240)
0	0	0	0	0	0	0	0

NITROGEN FACILITY SUMMARY

HRSD-York
 YORK Trading Basin



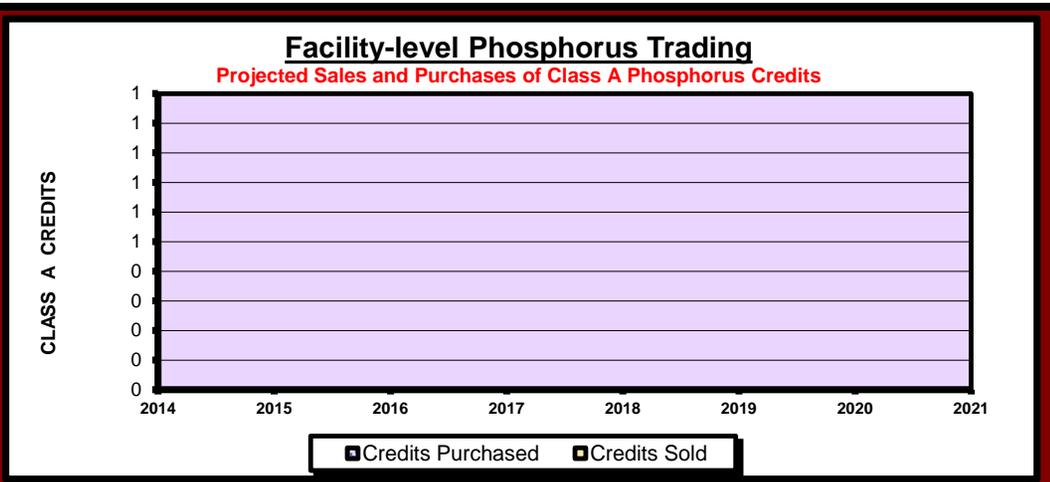
Loading & Credit Summary

Design Flow (mgd)	15.00
Projected Flow (mgd)	12.28
Projected Avg. Annual Concentration (mg/L)	6.00
Discharged Load (end of pipe)	224,337
Delivery Factor	1.00
Expected Load	224,337
Delivered WLA	275,927
Expected Credits (delivered)	51,590
Transfers In (Out) within Owner Bubble	(8,415)
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	43,175
Class A Credit Sales (Purchases)	0
Expected Class B Credits	43,175

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
12.28	12.37	12.46	11.91	12.34	12.38	12.42	12.46
6.00	6.00	6.00	7.00	7.00	7.00	7.00	7.00
224,337	226,038	227,753	253,938	262,982	263,841	264,703	265,567
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
224,337	226,038	227,753	253,938	262,982	263,841	264,703	265,567
275,927	275,927	275,927	275,927	275,927	275,927	275,927	275,927
51,590	49,889	48,174	21,989	12,945	12,086	11,224	10,360
(8,415)	(8,734)	(9,058)	(12,621)	(10,193)	(10,329)	(10,464)	(10,360)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
43,175	41,155	39,116	9,368	2,752	1,757	760	0
0	0	0	0	0	0	0	0
43,175	41,155	39,116	9,368	2,752	1,757	760	0

PHOSPHORUS FACILITY SUMMARY

HRSD-King William
 YORK Trading Basin



Loading & Credit Summary

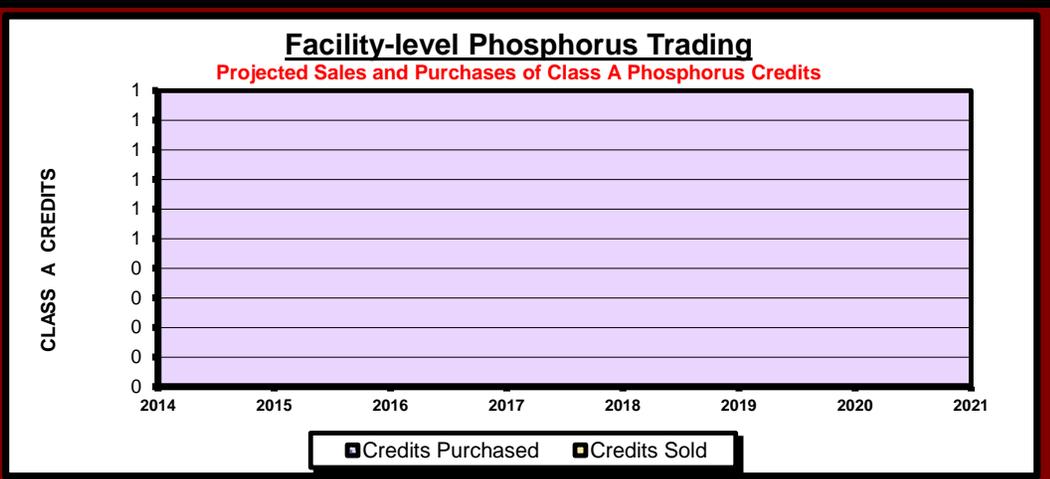
Design Flow (mgd)	Projected Flow (mgd)	Projected Avg. Annual Concentration (mg/L)	Discharged Load (end of pipe)	Delivery Factor	Expected Load	Delivered WLA	Expected Credits (delivered)	Transfers In (Out) within Owner Bubble	Transfers In (Out) from Private Exchange	WQIF-Held Credits	Expected Net Credits
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2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
25	25	25	30	29	30	30	30
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
25	25	25	30	29	30	30	30
190	190	190	190	190	190	190	190
165	165	165	160	161	160	160	160
(165)	(165)	(165)	(160)	(161)	(160)	(160)	(160)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

PHOSPHORUS FACILITY SUMMARY

HRSD-West Point

YORK Trading Basin



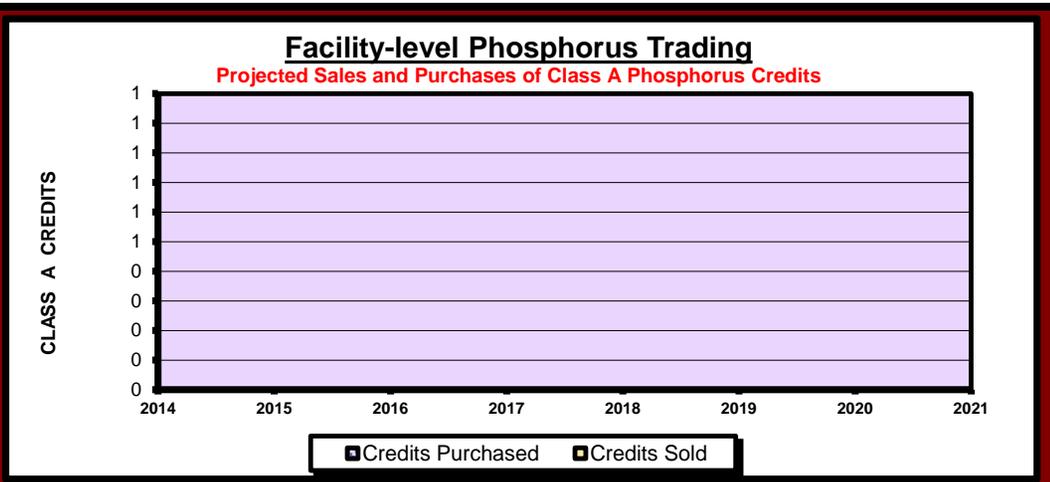
Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
0.45	0.46	0.47	0.46	0.42	0.42	0.42	0.42
2.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00
2,767	2,809	2,852	4,219	3,804	3,827	3,849	3,872
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2,767	2,809	2,852	4,219	3,804	3,827	3,849	3,872
1,279	1,279	731	731	731	731	731	731
(1,488)	(1,530)	(2,121)	(3,488)	(3,073)	(3,096)	(3,118)	(3,141)
1,488	1,530	2,121	3,488	3,073	3,096	3,118	3,141
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

PHOSPHORUS FACILITY SUMMARY

HRSD-York
 YORK Trading Basin



Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
12.28	12.37	12.46	11.91	12.34	12.38	12.42	12.46
0.70	0.70	0.30	0.40	0.40	0.40	0.40	0.40
26,173	26,371	11,388	14,511	15,028	15,077	15,126	15,175
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
26,173	26,371	11,388	14,511	15,028	15,077	15,126	15,175
32,191	32,191	18,395	18,395	18,395	18,395	18,395	18,395
6,018	5,820	7,007	3,884	3,367	3,318	3,269	3,220
(1,323)	(1,365)	(1,956)	(3,328)	(2,912)	(2,936)	(2,958)	(2,981)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
4,695	4,455	5,051	556	455	382	311	239
0	0	0	0	0	0	0	0
4,695	4,455	5,051	556	455	382	311	239

FACILITY (OR OWNER BUBBLE) NAME: VAN030052 HRSD York River Aggregate

COMPLIANCE STATEMENT FOR FACILITIES SUBJECT TO REDUCED WASTELOAD ALLOCATIONS IN CHESAPEAKE BAY TMDL

Check One:

- James River TN Compliance
 York River TP Compliance

Compliance Information Required by 9 VAC 25-820-40 A 2 (Check Option 1 or Option 2)

Option 1 (9 VAC 25-820-40 A 2 b): Permittee hereby requests WLA to be effective as of January 1, 2012.

Option 2 (9 VAC 25-820-40 A 2 a): Additional capital project(s) is needed to ensure continued compliance with the WLA through the applicable compliance schedule deadline for the tributary. (Note: Checking Option 2 does not preclude use of credit purchase as means of compliance under II.B.)

If Option 2 is checked, briefly describe need for additional projects:

York River STP project was developed to meet the 2012 nutrient general permit requirements. The project was divided into multiple phases. Contract A is substantially completed. The next phase of work will include plant improvements to address reliability of the nutrient removal process through the installation of new chemical feed facilities.

Implementation Schedule

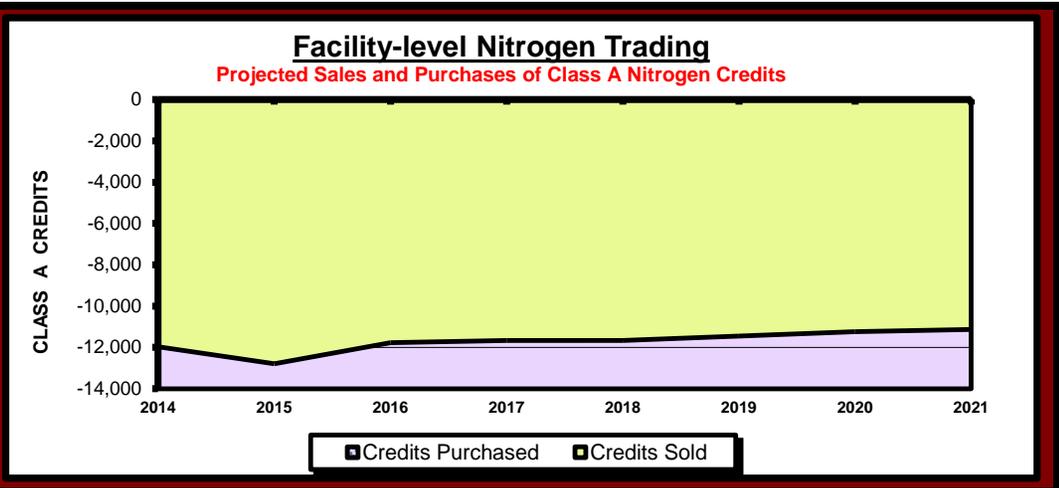
- Does permittee anticipate using credit purchase to comply?
 NO YES
- Is permittee implementing a capital project to comply?
 NO YES
(If YES, compliance is required as soon as possible but no later than the applicable tributary compliance schedule deadline.)
- Capital Project Milestone Schedule (Specify estimated date for each milestone. For bubbles, specify facility name(s) and list multiple facility schedules if applicable.)

York River STP –Chemical Facility Improvements

Engineer selection	<u>9/1/2013</u>
PER/CER to DEQ	<u>5/1/2014</u>
Plans & Specifications to DEQ	<u>12/1/2014</u>
Commence construction	<u>1/1/2015</u>
Complete construction	<u>7/1/2016</u>
CTO Request to DEQ (POTWs only)	<u>8/1/2016</u>

NITROGEN FACILITY SUMMARY

New Kent Co-Parham
YORK Trading Basin



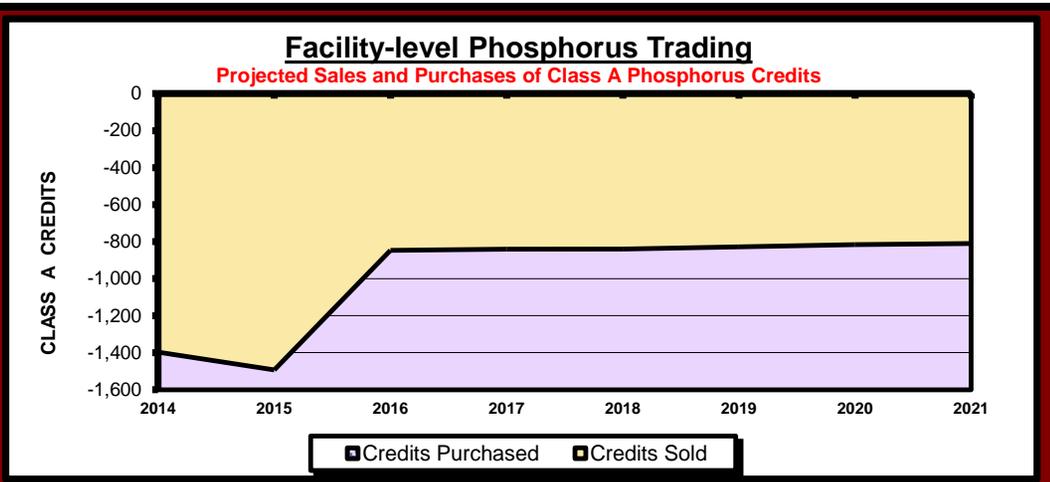
Loading & Credit Summary

Design Flow (mgd)	2.00
Projected Flow (mgd)	0.69
Projected Avg. Annual Concentration (mg/L)	6.00
Discharged Load (end of pipe)	12,609
Delivery Factor	1.00
Expected Load	12,609
Delivered WLA	36,547
Expected Credits (delivered)	23,938
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	23,938
Class A Credit Sales (Purchases)	11,969
Expected Class B Credits	11,969

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
0.69	0.60	0.61	0.62	0.62	0.64	0.66	0.67
6.00	6.00	7.00	7.00	7.00	7.00	7.00	7.00
12,609	10,964	13,005	13,218	13,218	13,644	14,070	14,284
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
12,609	10,964	13,005	13,218	13,218	13,644	14,070	14,284
36,547	36,547	36,547	36,547	36,547	36,547	36,547	36,547
23,938	25,583	23,542	23,329	23,329	22,903	22,477	22,263
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
23,938	25,583	23,542	23,329	23,329	22,903	22,477	22,263
11,969	12,792	11,771	11,665	11,664	11,451	11,238	11,131
11,969	12,791	11,771	11,665	11,665	11,452	11,239	11,132

PHOSPHORUS FACILITY SUMMARY

New Kent Co-Parham
 YORK Trading Basin



Loading & Credit Summary

Design Flow (mgd)	2.00
Projected Flow (mgd)	0.69
Projected Avg. Annual Concentration (mg/L)	0.70
Discharged Load (end of pipe)	
Delivery Factor	1.00
Expected Load	1,471
Delivered WLA	4,264
Expected Credits (delivered)	
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	2,793
Class A Credit Sales (Purchases)	1,397
Expected Class B Credits	1,396

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
0.69	0.60	0.61	0.62	0.62	0.64	0.66	0.67
0.70	0.70	0.40	0.40	0.40	0.40	0.40	0.40
1,471	1,279	743	755	755	780	804	816
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1,471	1,279	743	755	755	780	804	816
4,264	4,264	2,436	2,436	2,436	2,436	2,436	2,436
2,793	2,985	1,693	1,681	1,681	1,656	1,632	1,620
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
2,793	2,985	1,693	1,681	1,681	1,656	1,632	1,620
1,397	1,493	847	841	840	828	816	810
1,396	1,492	846	841	841	828	816	810

**COMPLIANCE STATEMENT FOR FACILITIES SUBJECT TO REDUCED
WASTELOAD ALLOCATIONS IN CHESAPEAKE BAY TMDL**

Facility (Or Owner Bubble) Name: *New Kent County – Parham Landing WWTP*

Check One:

- James River TN Compliance
 York River TP Compliance

Compliance Information Required by 9 VAC 25-820-40 A 2 (Check Option 1 or Option 2)

Option 1 (9 VAC 25-820-40 A 2 b): Permittee hereby requests WLA to be effective as of January 1, 2012.

Option 2 (9 VAC 25-820-40 A 2 a): Additional capital project(s) is needed to ensure continued compliance with the WLA through the applicable compliance schedule deadline for the tributary. (Note: Checking Option 2 does not preclude use of credit purchase as means of compliance under II.B.)

If Option 2 is checked, briefly describe need for additional projects:

Enhancement to the Alum feed system to optimize chemical feed rates to offset additional cost associated with new limit.

Implementation Schedule

1. Does permittee anticipate using credit purchase to comply?
 NO YES

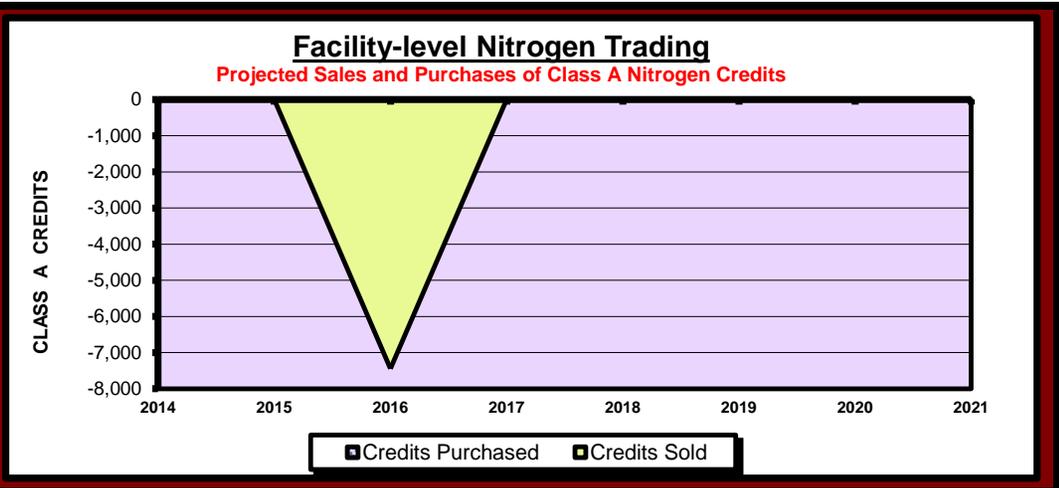
2. Is permittee implementing a capital project to comply?
 NO YES
(If YES, compliance is required as soon as possible but no later than the applicable tributary compliance schedule deadline.)

3. Capital Project Milestone Schedule (Specify estimated date for each milestone. For bubbles, specify facility name(s) and list multiple facility schedules if applicable.)

Engineer selection	<u> N/A </u>
PER/CER to DEQ	<u> N/A </u>
Plans & Specifications to DEQ	<u> March, 2015 </u>
Commence construction	<u> September 2015 </u>
Complete construction	<u> December, 2015 </u>
CTO Request to DEQ (POTWs only)	<u> N/A </u>

NITROGEN FACILITY SUMMARY

RockTenn
 YORK Trading Basin



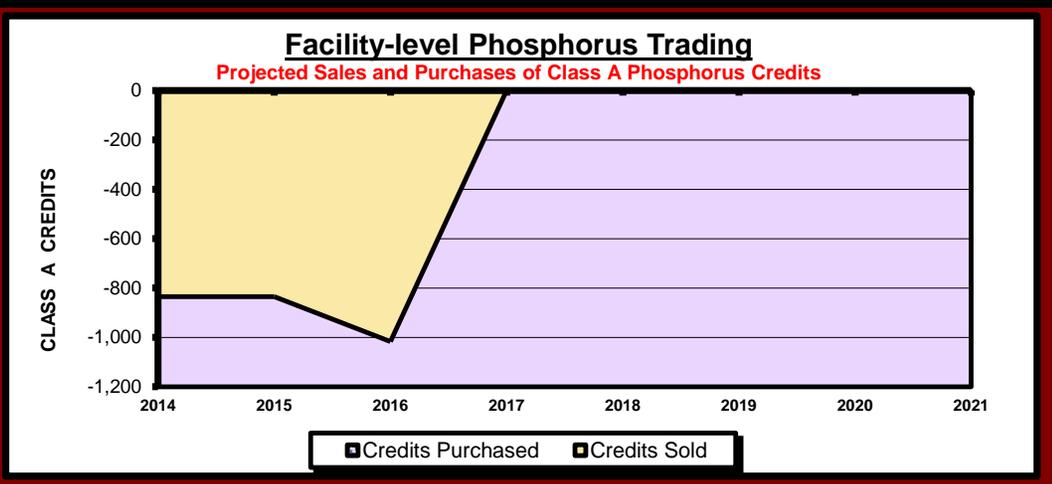
Loading & Credit Summary

Design Flow (mgd)	23.00
Projected Flow (mgd)	20.00
Projected Avg. Annual Concentration (mg/L)	4.10
Discharged Load (end of pipe)	249,736
Delivery Factor	1.00
Expected Load	249,736
Delivered WLA	259,177
Expected Credits (delivered)	9,441
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	9,441
Class A Credit Sales (Purchases)	0
Expected Class B Credits	9,441

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00
20.00	20.00	20.15	20.45	20.76	21.07	21.07	21.07
4.10	4.10	4.05	4.00	4.00	4.00	4.00	4.00
249,736	249,736	248,541	249,127	252,903	256,680	256,680	256,680
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
249,736	249,736	248,541	249,127	252,903	256,680	256,680	256,680
259,177	259,177	259,177	259,177	259,177	259,177	259,177	259,177
9,441	9,441	10,636	10,050	6,274	2,497	2,497	2,497
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
9,441	9,441	10,636	10,050	6,274	2,497	2,497	2,497
0	0	7,445	0	0	0	0	0
9,441	9,441	3,191	10,050	6,274	2,497	2,497	2,497

PHOSPHORUS FACILITY SUMMARY

RockTenn
 YORK Trading Basin



Loading & Credit Summary

Design Flow (mgd)	23.00
Projected Flow (mgd)	20.00
Projected Avg. Annual Concentration (mg/L)	0.88
Discharged Load (end of pipe)	53,602
Delivery Factor	1.00
Expected Load	53,602
Delivered WLA	56,038
Expected Credits (delivered)	2,436
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	(767)
WQIF-Held Credits	0
Expected Net Credits	1,669
Class A Credit Sales (Purchases)	835
Expected Class B Credits	834

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00
20.00	20.00	20.15	20.45	20.76	21.07	21.07	21.07
0.88	0.88	0.88	0.84	0.84	0.84	0.84	0.84
53,602	53,602	54,004	52,317	53,110	53,903	53,903	53,903
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
53,602	53,602	54,004	52,317	53,110	53,903	53,903	53,903
56,038	56,038	56,038	56,038	56,038	56,038	56,038	56,038
2,436	2,436	2,034	3,721	2,928	2,135	2,135	2,135
0	0	0	0	0	0	0	0
(767)	(767)	0	0	0	0	0	0
0	0	0	0	0	0	0	0
1,669	1,669	2,034	3,721	2,928	2,135	2,135	2,135
835	835	1,017	0	0	0	0	0
834	834	1,017	3,721	2,928	2,135	2,135	2,135

**COMPLIANCE STATEMENT FOR FACILITIES SUBJECT TO REDUCED
WASTELOAD ALLOCATIONS IN CHESAPEAKE BAY TMDL**

Facility (Or Owner Bubble) Name: **RockTenn CP LLC West Point Mill**

Check One:

James River TN Compliance

York River TP Compliance

Compliance Information Required by 9 VAC 25-820-40 A 2 (Check Option 1 or Option 2)

Option 1 (9 VAC 25-820-40 A 2 b): Permittee hereby requests WLA to be effective as of January 1, 2012.

Option 2 (9 VAC 25-820-40 A 2 a): Additional capital project(s) is needed to ensure continued compliance with the WLA through the applicable compliance schedule deadline for the tributary. (Note: Checking Option 2 does not preclude use of credit purchase as means of compliance under II.B.)

If Option 2 is checked, briefly describe need for additional projects:

Implementation Schedule

1. Does permittee anticipate using credit purchase to comply?

NO YES

2. Is permittee implementing a capital project to comply?

NO YES

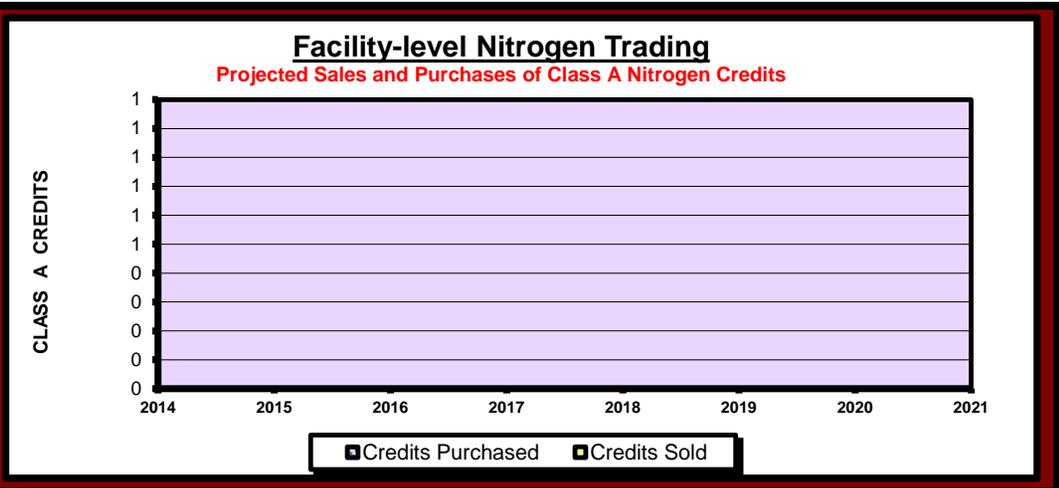
(If YES, compliance is required as soon as possible but no later than the applicable tributary compliance schedule deadline.)

3. Capital Project Milestone Schedule (Specify estimated date for each milestone. For bubbles, specify facility name(s) and list multiple facility schedules if applicable.)

Engineer selection	_____
PER/CER to DEQ	_____
Plans & Specifications to DEQ	_____
Commence construction	_____
Complete construction	_____
CTO Request to DEQ (POTWs only)	_____

NITROGEN FACILITY SUMMARY

RSA-Gordonville
 YORK Trading Basin



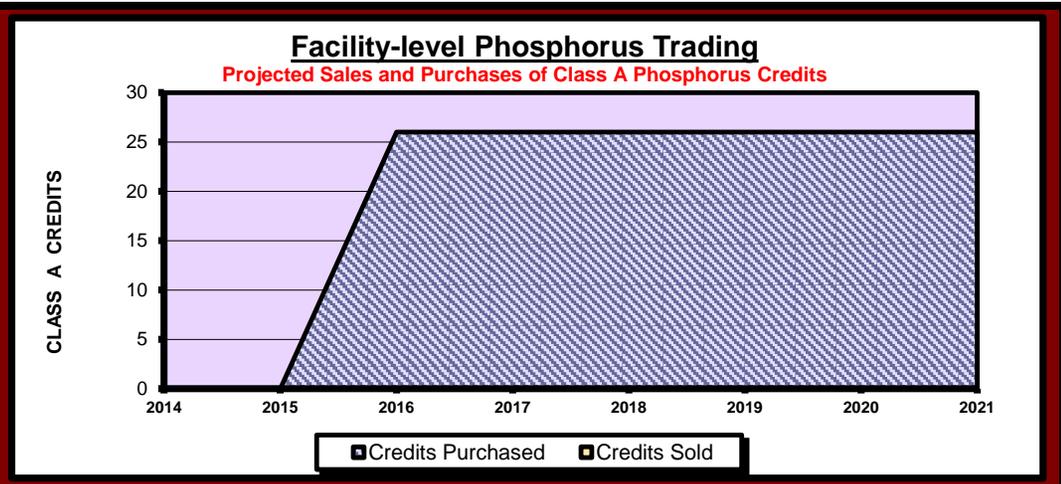
Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47
6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
8,588	8,588	8,588	8,588	8,588	8,588	8,588	8,588
0.01	0.01	0.05	0.05	0.05	0.05	0.05	0.05
86	86	429	429	429	429	429	429
172	172	859	859	859	859	859	859
86	86	430	430	430	430	430	430
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
(49)	(49)	(247)	(247)	(247)	(247)	(247)	(247)
37	37	183	183	183	183	183	183
0	0	0	0	0	0	0	0
37	37	183	183	183	183	183	183

PHOSPHORUS FACILITY SUMMARY

RSA-Gordonville
 YORK Trading Basin



Loading & Credit Summary

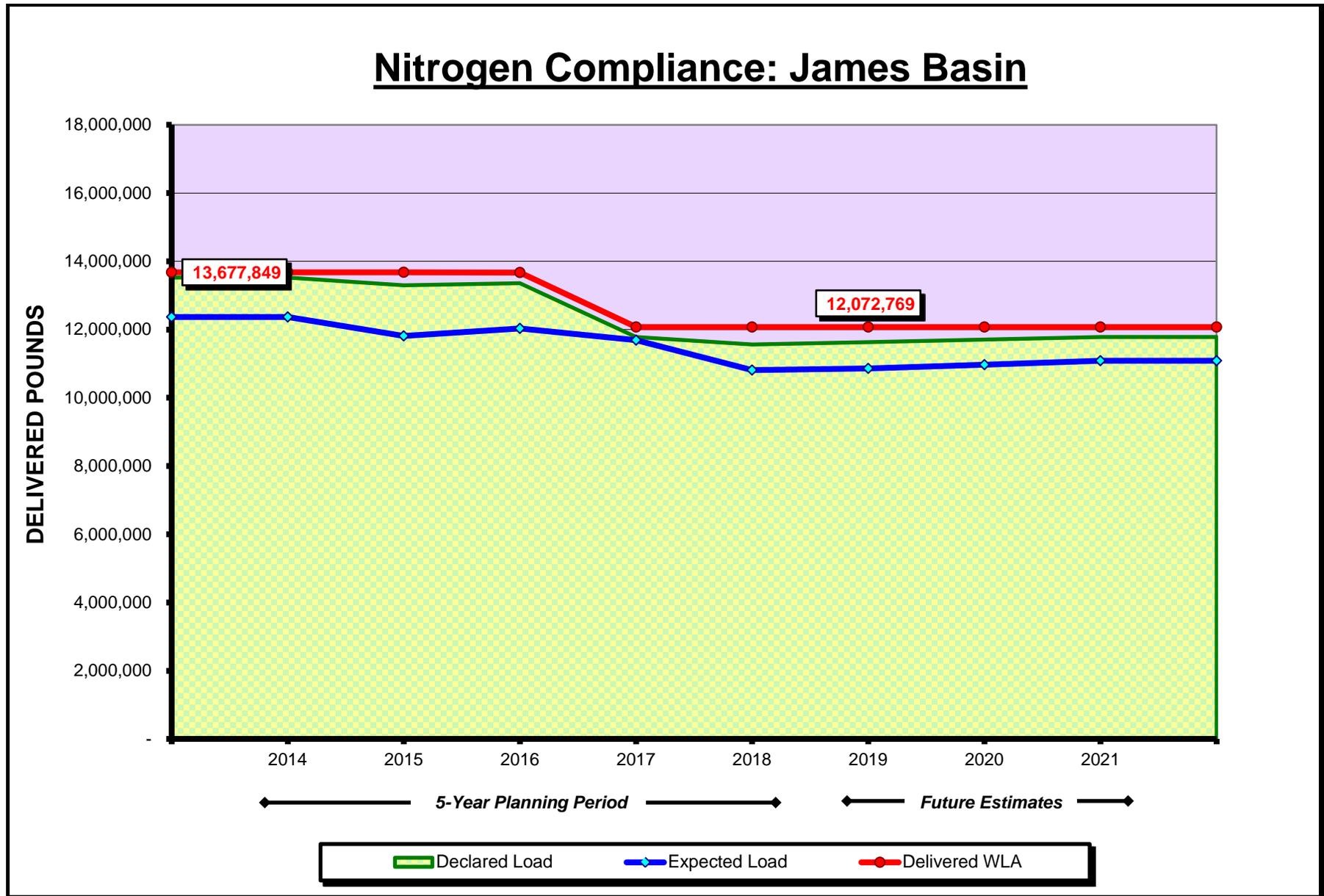
Design Flow (mgd)	0.67
Projected Flow (mgd)	0.47
Projected Avg. Annual Concentration (mg/L)	0.90
Discharged Load (end of pipe)	1,288
Delivery Factor	0.60
Expected Load	773
Delivered WLA	1,202
Expected Credits (delivered)	429
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	(345)
Expected Net Credits	84
Class A Credit Sales (Purchases)	0
Expected Class B Credits	84

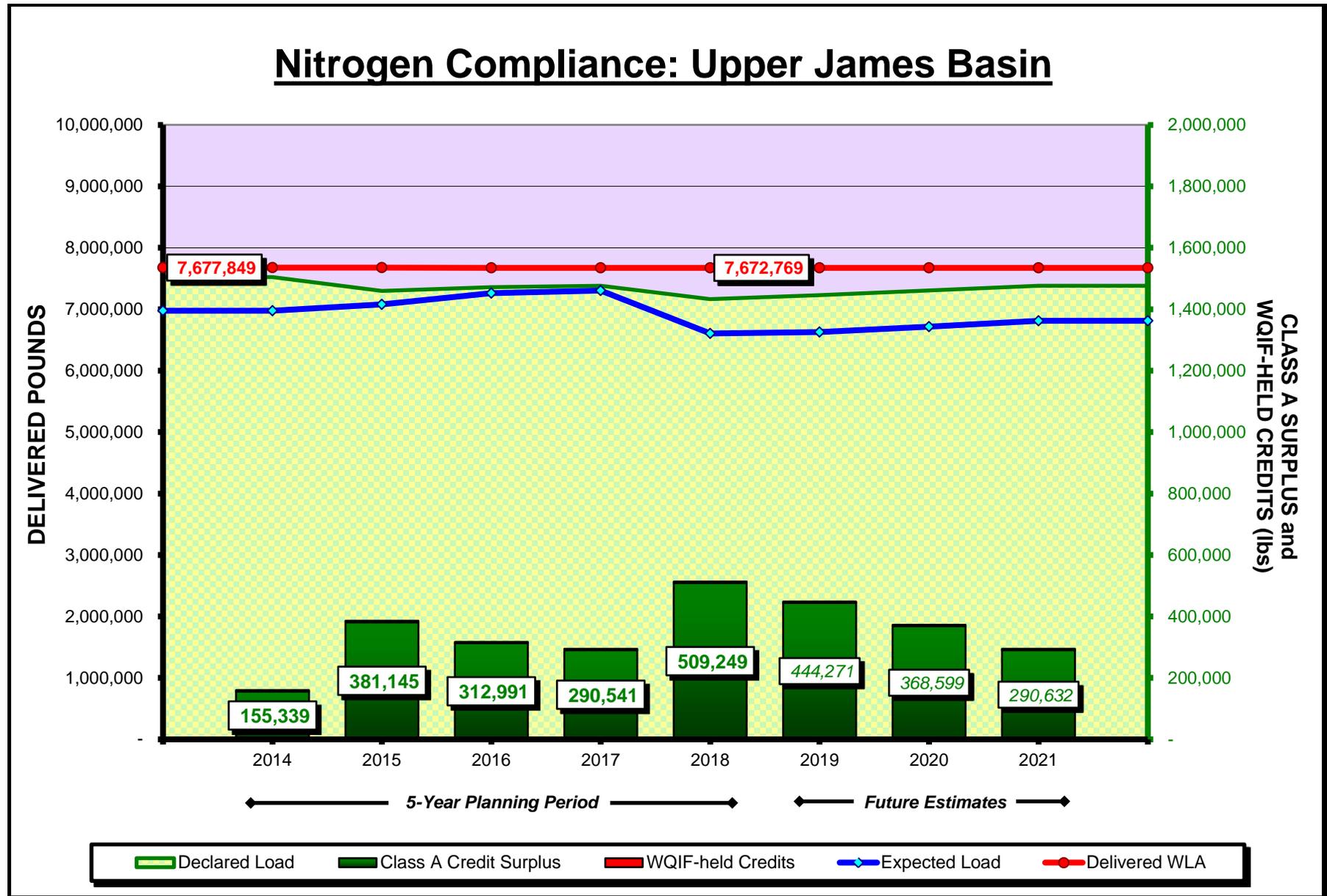
	2014	2015	2016	2017	2018	2019	2020	2021
	Planning Period					Future Estimates (non-binding)		
Design Flow (mgd)	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Projected Flow (mgd)	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47
Projected Avg. Annual Concentration (mg/L)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Discharged Load (end of pipe)	1,288	1,288	1,288	1,288	1,288	1,288	1,288	1,288
Delivery Factor	0.60	0.60	0.18	0.18	0.18	0.18	0.18	0.18
Expected Load	773	773	232	232	232	232	232	232
Delivered WLA	1,202	1,202	206	206	206	206	206	206
Expected Credits (delivered)	429	429	(26)	(26)	(26)	(26)	(26)	(26)
Transfers In (Out) within Owner Bubble	0	0	0	0	0	0	0	0
Transfers In (Out) from Private Exchange	0	0	0	0	0	0	0	0
WQIF-Held Credits	(345)	(345)	0	0	0	0	0	0
Expected Net Credits	84	84	(26)	(26)	(26)	(26)	(26)	(26)
Class A Credit Sales (Purchases)	0	0	(26)	(26)	(26)	(26)	(26)	(26)
Expected Class B Credits	84	84	0	0	0	0	0	0

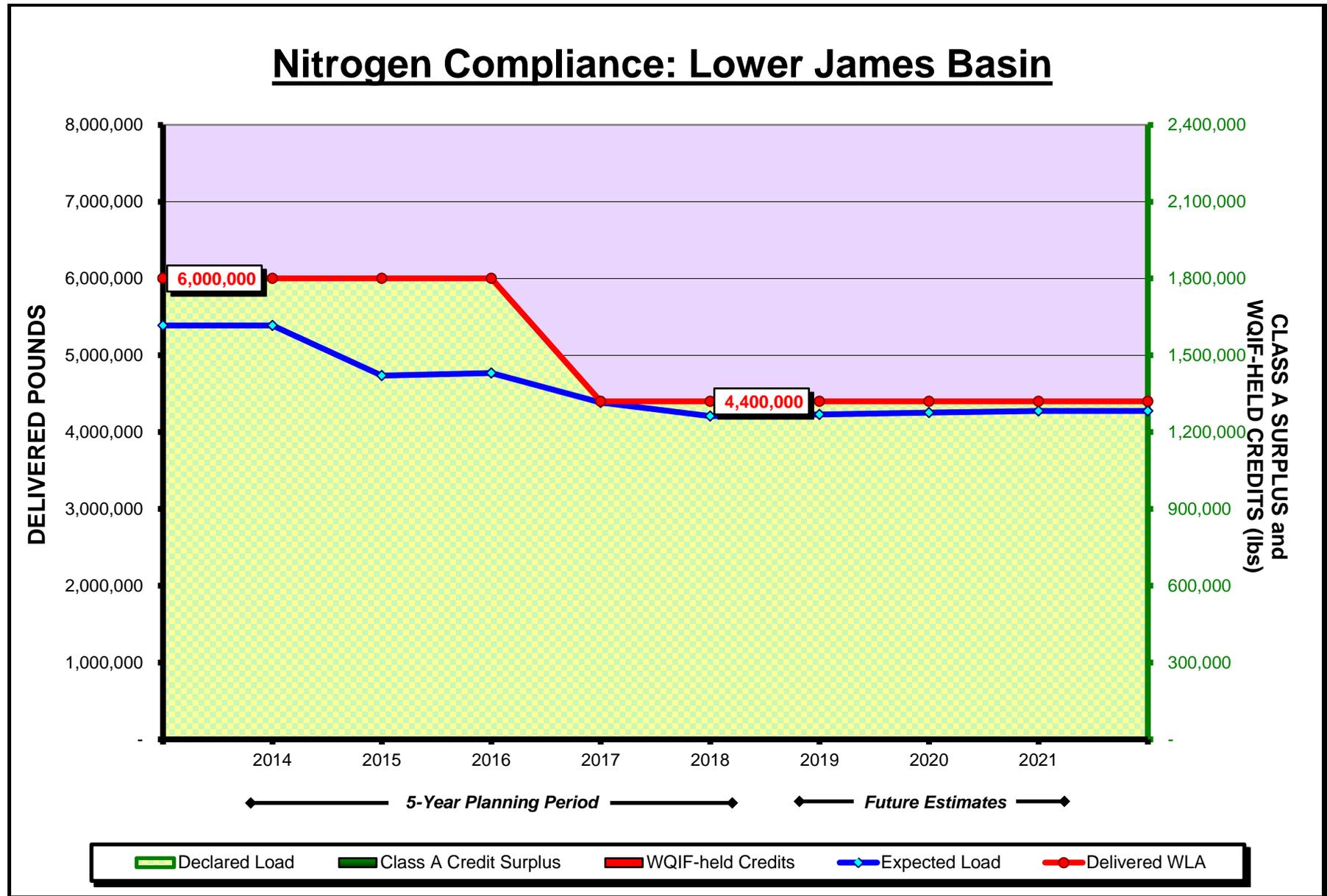
SECTION 5

James River Basin Exchange Compliance Plan









JAMES Basin: Nitrogen Credit Ledger

Compliance Year:	2014	Credit Forecasts		Preliminary Use of Credits			Expected Net Credits	Credit Exchange (Pounds)			
		Delivered WLA	Expected Load	Expected Credits	In-Bubble Exchange	Private Exchange		WQIF-Held Credits	Class A Sales	Class A* Purchases	Class B** (expected)
								PRICE:	\$ 1.54	\$ 2.65	\$ 0.13
UPPER JAMES BASIN	7,677,849	6,976,327	701,522	-	-	(4,934)	696,588		440,921	(285,582)	541,249
Alleghany Co-L. Jackson	19,187	10,553	8,634	-	-	(4,934)	3,700		-	-	3,700
Alleghany Co-Low Moor	2,741	1,974	767	-	-	-	767		-	-	767
Amherst (Town)	6,688	4,463	2,225	-	-	-	2,225	1,113	-	-	1,112
Aqua Virginia-L. Monticello	11,091	9,029	2,062	-	-	-	2,062		-	-	2,062
Babcock & Wilcox, N.O.G.	114,070	114,065	5	-	-	-	5		-	-	5
Buena Vista	12,335	14,100	(1,765)	-	-	-	(1,765)		-	(3,508)	1,743
Chesterfield-Falling Cr.	153,801	151,174	2,627	-	-	-	2,627		-	-	2,627
Chesterfield-Proctors Cr.	411,151	245,815	165,336	-	-	-	165,336		-	-	165,336
Covington	16,446	21,380	(4,934)	-	-	-	(4,934)		-	(4,934)	-
Crewe	3,472	1,042	2,430	-	-	-	2,430	2,430	-	-	-
Dominion-Chesterfield	352,036	344,955	7,081	-	-	-	7,081		-	-	7,081
DuPont-Spruance	201,080	216,566	(15,486)	-	-	-	(15,486)		-	(68,557)	53,071
Georgia-Pacific	36,747	29,457	7,290	-	-	-	7,290	3,645	-	-	3,645
Greif Packaging	44,680	40,453	4,227	-	-	-	4,227	2,114	-	-	2,113
Henrico Co	1,142,085	801,677	340,408	-	-	-	340,408	215,268	-	-	125,140
Honeywell-Hopewell	1,090,798	837,529	253,269	-	(135,648)	-	117,621		-	-	117,621
Hopewell RWTF	1,827,336	1,962,984	(135,648)	-	135,648	-	-		-	-	-
Lynchburg	326,971	219,452	107,519	-	-	-	107,519	96,767	-	-	10,752
MeadWestvaco	118,320	97,991	20,329	-	-	-	20,329	20,329	-	-	-
MSA-Lexington	16,446	8,223	8,223	-	-	-	8,223	8,223	-	-	-
Philip Morris	139,724	67,733	71,991	-	-	-	71,991	28,796	-	-	43,195
Richmond	1,093,652	1,093,652	-	-	-	-	-		-	-	-
RWSA-Moores Creek	167,201	104,965	62,236	-	-	-	62,236	62,236	-	-	-
South Central WWA	350,239	558,822	(208,583)	-	-	-	(208,583)		-	(208,583)	-
Tyson Foods-Glen Allen	19,552	18,273	1,279	-	-	-	1,279		-	-	1,279
								PRICE:	No Sale	No Sale	No Sale
LOWER JAMES BASIN	6,000,000	5,388,752	611,248	-	-	-	611,248		-	-	611,248
HRSD-Army Base	610,000	860,961	(250,961)	250,961	-	-	-		-	-	-
HRSD-Boat Harbor	740,000	1,100,278	(360,278)	360,278	-	-	-		-	-	-
HRSD-Ches/Eliz	1,100,000	1,215,864	(115,864)	115,864	-	-	-		-	-	-
HRSD-James River	1,250,000	501,772	748,228	(748,228)	-	-	-		-	-	-
HRSD-Nansemond	750,000	443,521	306,479	(72,333)	-	-	234,146		-	-	234,146
HRSD-VIP	750,000	843,458	(93,458)	93,458	-	-	-		-	-	-
HRSD-Williamsburg	800,000	422,898	377,102	-	-	-	377,102		-	-	377,102

* For this Compliance Year, 0% of all Class A Credit Purchases are expected to be satisfied using Class B Credits.

** Expected Class B Credits are estimates only. Actual Class B Credits—and the resulting Class B sales price—will vary from estimates based on actual Delivered Loads in the Compliance Year.

JAMES Basin: Nitrogen Credit Ledger

Compliance Year:	2015	Credit Forecasts		Preliminary Use of Credits			Expected Net Credits	Credit Exchange (Pounds)			
		Delivered WLA	Expected Load	Expected Credits	In-Bubble Exchange	Private Exchange		WQIF-Held Credits	Class A Sales	Class A* Purchases	Class B** (expected)
								PRICE:	\$ 0.43	\$ 3.05	\$ 0.10
UPPER JAMES BASIN	7,677,849	7,078,388	599,461	-	-	(4,934)	594,527		453,580	(72,435)	213,382
Alleghany Co-L. Jackson	19,187	10,507	8,680	-	-	(4,934)	3,746		-	-	3,746
Alleghany Co-Low Moor	2,741	2,120	621	-	-	-	621		-	-	621
Amherst (Town)	6,688	4,463	2,225	-	-	-	2,225		1,113	-	1,112
Aqua Virginia-L. Monticello	11,091	9,252	1,839	-	-	-	1,839		-	-	1,839
Babcock & Wilcox, N.O.G.	114,070	114,065	5	-	-	-	5		-	-	5
Buena Vista	12,335	14,100	(1,765)	-	-	-	(1,765)		-	(2,821)	1,056
Chesterfield-Falling Cr.	153,801	151,303	2,498	-	-	-	2,498		-	-	2,498
Chesterfield-Proctors Cr.	411,151	244,223	166,928	-	(165,000)	-	1,928		-	-	1,928
Covington	16,446	21,380	(4,934)	-	-	-	(4,934)		-	(4,934)	-
Crewe	3,472	1,033	2,439	-	-	-	2,439		2,439	-	-
Dominion-Chesterfield	352,036	344,955	7,081	-	-	-	7,081		-	-	7,081
DuPont-Spruance	201,080	216,430	(15,350)	-	-	-	(15,350)		-	(64,680)	49,330
Georgia-Pacific	36,747	29,749	6,998	-	-	-	6,998		6,000	-	998
Greif Packaging	44,680	44,680	-	-	-	-	-		-	-	-
Henrico Co	1,142,085	825,703	316,382	-	(85,404)	-	230,978		207,880	-	23,098
Honeywell-Hopewell	1,090,798	837,529	253,269	-	(158,816)	-	94,453		-	-	94,453
Hopewell RWTF	1,827,336	1,986,152	(158,816)	-	158,816	-	-		-	-	-
Lynchburg	326,971	227,579	99,392	-	-	-	99,392		89,453	-	9,939
MeadWestvaco	118,320	97,991	20,329	-	-	-	20,329		20,329	-	-
MSA-Lexington	16,446	8,607	7,839	-	-	-	7,839		7,839	-	-
Philip Morris	139,724	67,733	71,991	-	-	-	71,991		57,592	-	14,399
Richmond	1,093,652	1,093,652	-	-	-	-	-		-	-	-
RWSA-Moores Creek	167,201	106,266	60,935	-	-	-	60,935		60,935	-	-
South Central WWA	350,239	600,643	(250,404)	-	250,404	-	-		-	-	-
Tyson Foods-Glen Allen	19,552	18,273	1,279	-	-	-	1,279		-	-	1,279
								PRICE:	No Sale	No Sale	No Sale
LOWER JAMES BASIN	6,000,000	4,734,867	1,265,133	-	-	-	1,265,133		-	-	1,265,133
HRSD-Army Base	610,000	172,268	437,732	-	-	-	437,732		-	-	437,732
HRSD-Boat Harbor	740,000	1,104,646	(364,646)	364,646	-	-	-		-	-	-
HRSD-Ches/Eliz	1,100,000	1,224,022	(124,022)	124,022	-	-	-		-	-	-
HRSD-James River	1,250,000	505,024	744,976	(584,072)	-	-	160,904		-	-	160,904
HRSD-Nansemond	750,000	452,462	297,538	-	-	-	297,538		-	-	297,538
HRSD-VIP	750,000	845,404	(95,404)	95,404	-	-	-		-	-	-
HRSD-Williamsburg	800,000	431,041	368,959	-	-	-	368,959		-	-	368,959

* For this Compliance Year, 0% of all Class A Credit Purchases are expected to be satisfied using Class B Credits.

** Expected Class B Credits are estimates only. Actual Class B Credits—and the resulting Class B sales price—will vary from estimates based on actual Delivered Loads in the Compliance Year.

JAMES Basin: Nitrogen Credit Ledger

Compliance Year:	2016	Credit Forecasts		Preliminary Use of Credits			Expected Net Credits	Credit Exchange (Pounds)			
		Delivered WLA	Expected Load	Expected Credits	In-Bubble Exchange	Private Exchange		WQIF-Held Credits	Class A Sales	Class A* Purchases	Class B** (expected)
								PRICE:	\$ 0.63	\$ 3.50	\$ 0.28
UPPER JAMES BASIN	7,672,769	7,260,000	412,769	-	-	(4,276)	408,493		391,266	(78,275)	95,502
Alleghany Co-L. Jackson	16,629	9,265	7,364	-	-	(4,276)	3,088		-	-	3,088
Alleghany Co-Low Moor	2,376	1,964	412	-	-	-	412		-	-	412
Amherst (Town)	3,728	2,246	1,482	-	-	-	1,482		741	-	741
Aqua Virginia-L. Monticello	12,182	41,210	(29,028)	-	-	-	(29,028)		-	(29,028)	-
Babcock & Wilcox, N.O.G.	121,550	121,544	6	-	-	-	6		-	-	6
Buena Vista	23,024	26,319	(3,295)	-	-	-	(3,295)		-	(3,295)	-
Chesterfield-Falling Cr.	153,801	151,326	2,475	-	-	-	2,475		-	-	2,475
Chesterfield-Proctors Cr.	411,151	242,526	168,625	-	(165,000)	-	3,625		-	-	3,625
Covington	11,512	14,966	(3,454)	-	-	-	(3,454)		-	(3,454)	-
Crewe	2,650	755	1,895	-	-	-	1,895		1,895	-	-
Dominion-Chesterfield	352,036	344,955	7,081	-	-	-	7,081		-	-	7,081
DuPont-Spruance	201,080	243,578	(42,498)	-	-	-	(42,498)		-	(42,498)	-
Georgia-Pacific	73,493	60,083	13,410	-	-	-	13,410		10,000	-	3,410
Greif Packaging	47,610	47,610	-	-	-	-	-		-	-	-
Henrico Co	1,142,085	850,476	291,609	-	(118,352)	-	173,257		155,931	-	17,326
Honeywell-Hopewell	1,090,798	875,599	215,199	-	(181,985)	-	33,214		-	-	33,214
Hopewell RWTF	1,827,336	2,009,321	(181,985)	-	181,985	-	-		-	-	-
Lynchburg	348,412	251,164	97,248	-	-	-	97,248		87,523	-	9,725
MeadWestvaco	43,384	35,930	7,454	-	-	-	7,454		7,454	-	-
MSA-Lexington	17,542	9,648	7,894	-	-	-	7,894		7,894	-	-
Philip Morris	139,724	67,733	71,991	-	-	-	71,991		57,592	-	14,399
Richmond	1,093,652	1,093,652	-	-	-	-	-		-	-	-
RWSA-Moores Creek	183,647	121,411	62,236	-	-	-	62,236		62,236	-	-
South Central WWA	350,239	633,591	(283,352)	-	283,352	-	-		-	-	-
Tyson Foods-Glen Allen	3,128	3,128	-	-	-	-	-		-	-	-
								PRICE:	No Sale	No Sale	No Sale
LOWER JAMES BASIN	6,000,000	4,770,185	1,229,815	-	-	-	1,229,815		-	-	1,229,815
HRSD-Army Base	610,000	172,344	437,656	-	-	-	437,656		-	-	437,656
HRSD-Boat Harbor	740,000	1,109,031	(369,031)	369,031	-	-	-		-	-	-
HRSD-Ches/Eliz	1,100,000	1,232,234	(132,234)	132,234	-	-	-		-	-	-
HRSD-James River	1,250,000	508,297	741,703	(598,620)	-	-	143,083		-	-	143,083
HRSD-Nansemond	750,000	461,582	288,418	-	-	-	288,418		-	-	288,418
HRSD-VIP	750,000	847,355	(97,355)	97,355	-	-	-		-	-	-
HRSD-Williamsburg	800,000	439,342	360,658	-	-	-	360,658		-	-	360,658

* For this Compliance Year, 0% of all Class A Credit Purchases are expected to be satisfied using Class B Credits.

** Expected Class B Credits are estimates only. Actual Class B Credits—and the resulting Class B sales price—will vary from estimates based on actual Delivered Loads in the Compliance Year.

JAMES Basin: Nitrogen Credit Ledger

Compliance Year:		2017		Credit Forecasts		Preliminary Use of Credits			Credit Exchange (Pounds)			
Facility Name	Delivered WLA	Expected Load	Expected Credits	In-Bubble Exchange	Private Exchange	WQIF-Held Credits	Expected Net Credits		Class A Sales	Class A* Purchases	Class B** (expected)	
								PRICE:	\$ 0.56	\$ 3.75	\$ 0.29	
UPPER JAMES BASIN	7,672,769	7,302,616	370,153	-	-	(4,276)	365,877		348,847	(58,306)	75,336	
Alleghany Co-L. Jackson	16,629	7,127	9,502	-	-	(4,276)	5,226		-	-	5,226	
Alleghany Co-Low Moor	2,376	2,178	198	-	-	-	198		-	-	198	
Amherst (Town)	3,728	2,042	1,686	-	-	-	1,686		843	-	843	
Aqua Virginia-L. Monticello	12,182	8,325	3,857	-	-	-	3,857		-	-	3,857	
Babcock & Wilcox, N.O.G.	121,550	121,544	6	-	-	-	6		-	-	6	
Buena Vista	23,024	26,319	(3,295)	-	-	-	(3,295)		-	(3,295)	-	
Chesterfield-Falling Cr.	153,801	151,243	2,558	-	-	-	2,558		-	-	2,558	
Chesterfield-Proctors Cr.	411,151	240,721	170,430	-	(165,000)	-	5,430		-	-	5,430	
Covington	11,512	14,966	(3,454)	-	-	-	(3,454)		-	(3,454)	-	
Crewe	2,650	772	1,878	-	-	-	1,878		1,878	-	-	
Dominion-Chesterfield	352,036	344,955	7,081	-	-	-	7,081		-	-	7,081	
DuPont-Spruance	201,080	252,637	(51,557)	-	-	-	(51,557)		-	(51,557)	-	
Georgia-Pacific	73,493	60,668	12,825	-	-	-	12,825		10,000	-	2,825	
Greif Packaging	47,610	47,610	-	-	-	-	-		-	-	-	
Henrico Co	1,142,085	875,994	266,091	-	(152,572)	-	113,519		102,167	-	11,352	
Honeywell-Hopewell	1,090,798	875,599	215,199	-	(205,154)	-	10,045		-	-	10,045	
Hopewell RWTF	1,827,336	2,032,490	(205,154)	-	205,154	-	-		-	-	-	
Lynchburg	348,412	252,896	95,516	-	-	-	95,516		84,000	-	11,516	
MeadWestvaco	43,384	35,930	7,454	-	-	-	7,454		7,454	-	-	
MSA-Lexington	17,542	8,128	9,414	-	-	-	9,414		9,414	-	-	
Philip Morris	139,724	67,733	71,991	-	-	-	71,991		57,592	-	14,399	
Richmond	1,093,652	1,093,652	-	-	-	-	-		-	-	-	
RWSA-Moores Creek	183,647	108,148	75,499	-	-	-	75,499		75,499	-	-	
South Central WWA	350,239	667,811	(317,572)	-	317,572	-	-		-	-	-	
Tyson Foods-Glen Allen	3,128	3,128	-	-	-	-	-		-	-	-	
								PRICE:	No Sale	No Sale	No Sale	
LOWER JAMES BASIN	4,400,000	4,384,768	15,232	-	-	-	15,232		-	-	15,232	
HRSD-Army Base	441,226	150,658	290,568	(290,568)	-	-	-		-	-	-	
HRSD-Boat Harbor	612,813	1,126,658	(513,845)	513,845	-	-	-		-	-	-	
HRSD-Ches/Eliz	588,301	1,314,422	(726,121)	726,121	-	-	-		-	-	-	
HRSD-James River	490,251	412,579	77,672	(77,672)	-	-	-		-	-	-	
HRSD-Nansemond	735,376	414,074	321,302	(321,302)	-	-	-		-	-	-	
HRSD-VIP	980,501	601,789	378,712	(378,712)	-	-	-		-	-	-	
HRSD-Williamsburg	551,532	364,588	186,944	(171,712)	-	-	15,232		-	-	15,232	

* For this Compliance Year, 0% of all Class A Credit Purchases are expected to be satisfied using Class B Credits.

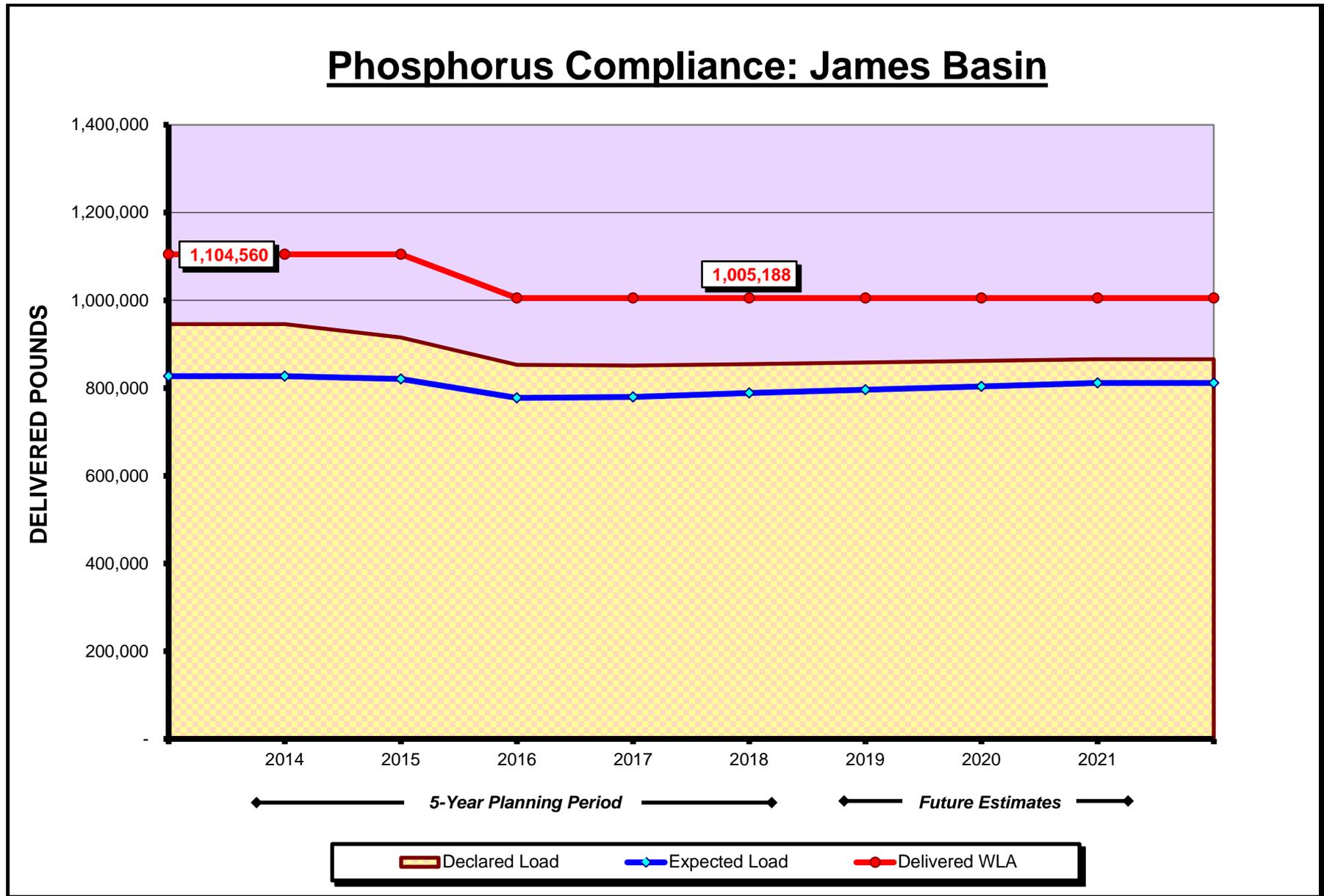
** Expected Class B Credits are estimates only. Actual Class B Credits—and the resulting Class B sales price—will vary from estimates based on actual Delivered Loads in the Compliance Year.

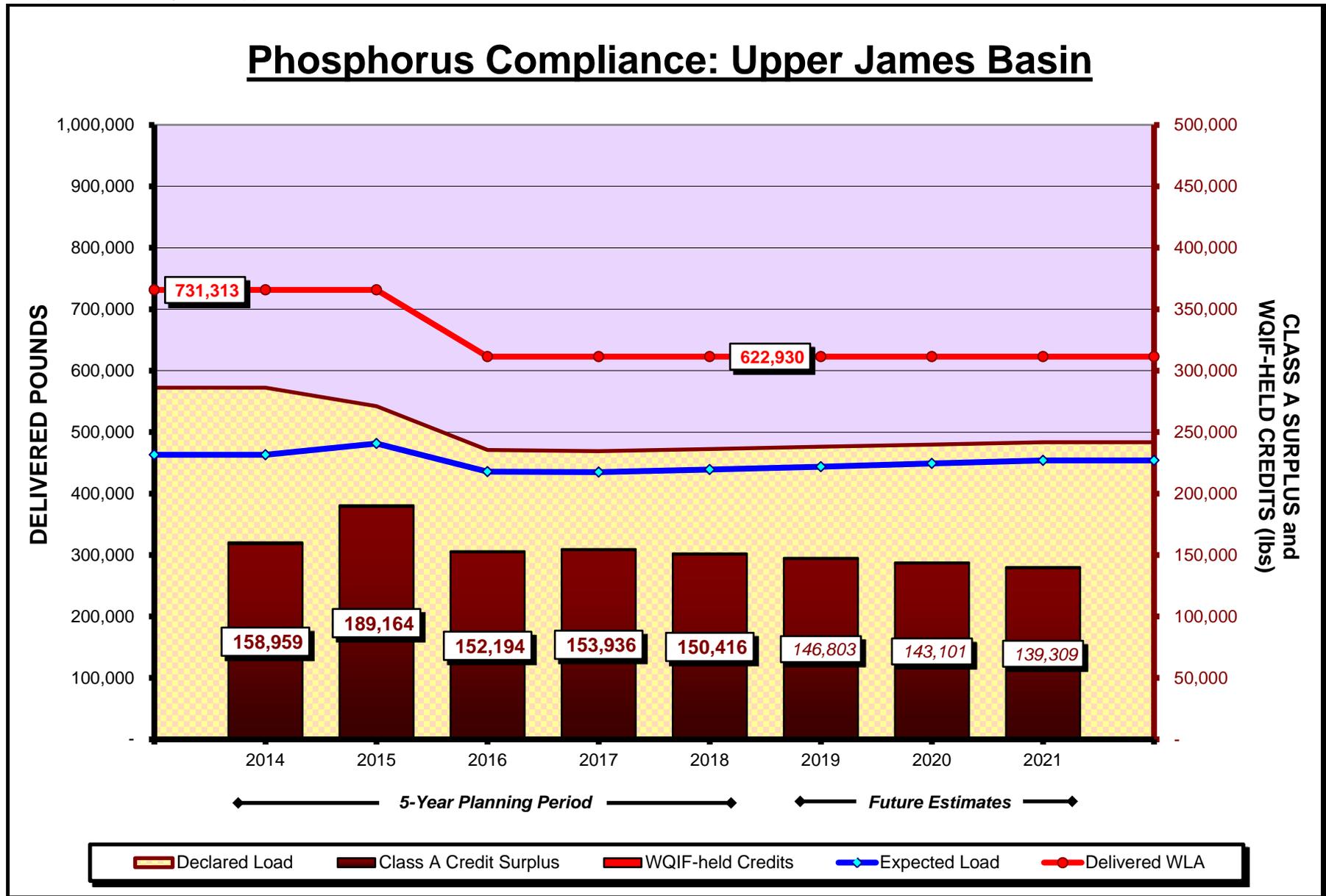
JAMES Basin: Nitrogen Credit Ledger

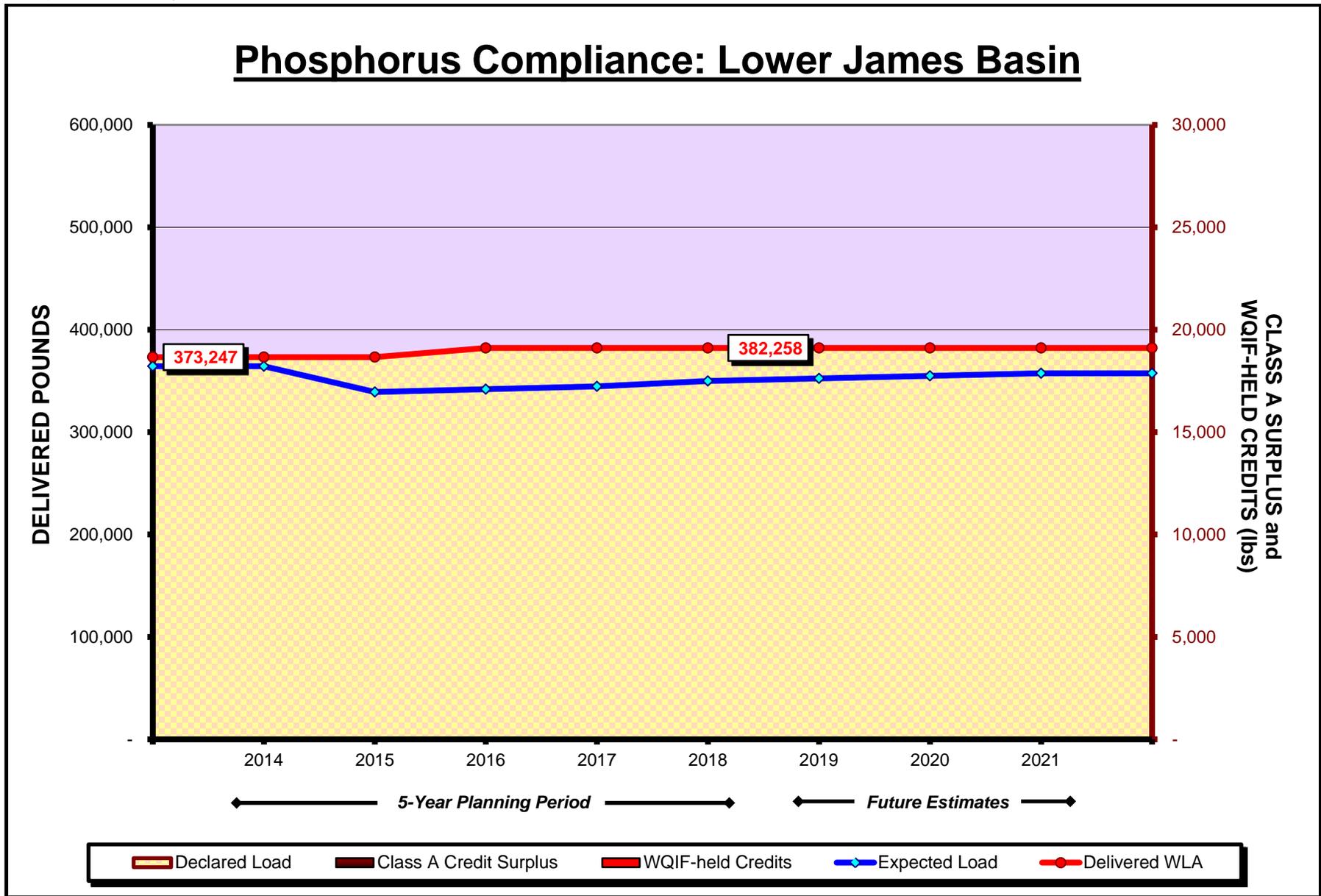
Compliance Year:	2018	Credit Forecasts		Preliminary Use of Credits			Credit Exchange (Pounds)						
Facility Name	Delivered WLA	Expected Load	Expected Credits	In-Bubble Exchange	Private Exchange	WQIF-Held Credits	Expected Net Credits	PRICE:	Class A Sales	Class A* Purchases	Class B** (expected)		
UPPER JAMES BASIN	7,672,769	6,605,121	1,067,648	-	-	(4,276)	1,063,372	\$ 0.37	\$ 3.78	\$ 0.04	572,233	(62,984)	554,123
Alleghany Co-L. Jackson	16,629	7,127	9,502	-	-	(4,276)	5,226		-	-	5,226		
Alleghany Co-Low Moor	2,376	2,178	198	-	-	-	198		-	-	198		
Amherst (Town)	3,728	2,042	1,686	-	-	-	1,686		843	-	843		
Aqua Virginia-L. Monticello	12,182	8,325	3,857	-	-	-	3,857		-	-	3,857		
Babcock & Wilcox, N.O.G.	121,550	121,544	6	-	-	-	6		-	-	6		
Buena Vista	23,024	26,319	(3,295)	-	-	-	(3,295)		-	(3,295)	-		
Chesterfield-Falling Cr.	153,801	151,052	2,749	-	-	-	2,749		-	-	2,749		
Chesterfield-Proctors Cr.	411,151	238,810	172,341	-	(165,000)	-	7,341		-	-	7,341		
Covington	11,512	14,966	(3,454)	-	-	-	(3,454)		-	(3,454)	-		
Crewe	2,650	772	1,878	-	-	-	1,878		1,878	-	-		
Dominion-Chesterfield	352,036	344,955	7,081	-	-	-	7,081		-	-	7,081		
DuPont-Spruance	201,080	257,315	(56,235)	-	-	-	(56,235)		-	(56,235)	-		
Georgia-Pacific	73,493	61,325	12,168	-	-	-	12,168		9,000	-	3,168		
Greif Packaging	47,610	47,610	-	-	-	-	-		-	-	-		
Henrico Co	1,142,085	902,259	239,826	-	(188,115)	-	51,711		46,547	-	5,164		
Honeywell-Hopewell	1,090,798	875,599	215,199	-	(2,522)	-	212,677		-	-	212,677		
Hopewell RWTF	1,827,336	1,279,988	547,348	-	2,522	-	549,870		274,935	-	274,935		
Lynchburg	348,412	246,007	102,405	-	-	-	102,405		90,000	-	12,405		
MeadWestvaco	43,384	35,930	7,454	-	-	-	7,454		7,454	-	-		
MSA-Lexington	17,542	3,963	13,579	-	-	-	13,579		9,505	-	4,074		
Philip Morris	139,724	67,733	71,991	-	-	-	71,991		57,592	-	14,399		
Richmond	1,093,652	1,093,652	-	-	-	-	-		-	-	-		
RWSA-Moores Creek	183,647	109,168	74,479	-	-	-	74,479		74,479	-	-		
South Central WWA	350,239	703,354	(353,115)	-	353,115	-	-		-	-	-		
Tyson Foods-Glen Allen	3,128	3,128	-	-	-	-	-		-	-	-		
LOWER JAMES BASIN	4,400,000	4,208,202	191,798	-	-	-	191,798	PRICE: No Sale	No Sale	No Sale	191,798	-	-
HRSD-Army Base	441,226	148,759	292,467	(292,467)	-	-	-		-	-	-		
HRSD-Boat Harbor	612,813	1,125,924	(513,111)	513,111	-	-	-		-	-	-		
HRSD-Ches/Eliz	588,301	1,433,318	(845,017)	845,017	-	-	-		-	-	-		
HRSD-James River	490,251	368,692	121,559	(121,559)	-	-	-		-	-	-		
HRSD-Nansemond	735,376	417,605	317,771	(317,771)	-	-	-		-	-	-		
HRSD-VIP	980,501	423,571	556,930	(556,930)	-	-	-		-	-	-		
HRSD-Williamsburg	551,532	290,333	261,199	(69,401)	-	-	191,798		-	-	191,798		

*** For this Compliance Year, 0% of all Class A Credit Purchases are expected to be satisfied using Class B Credits.**

**** Expected Class B Credits are estimates only. Actual Class B Credits—and the resulting Class B sales price—will vary from estimates based on actual Delivered Loads in the Compliance Year.**







JAMES Basin: Phosphorus Credit Ledger

Compliance Year:		2014		Credit Forecasts		Preliminary Use of Credits			Credit Exchange (Pounds)			
Facility Name	Delivered WLA	Expected Load	Expected Credits	In-Bubble Exchange	Private Exchange	WQIF-Held Credits	Expected Net Credits		Class A Sales	Class A* Purchases	Class B** (expected)	
								PRICE:	\$ 0.68	\$ 4.60	\$ 0.13	
UPPER JAMES BASIN	731,313	462,940	268,373	-	-	(1,371)	267,002		190,684	(31,725)	108,043	
Alleghany Co-L. Jackson	5,330	2,111	3,219	(61)	-	(1,371)	1,787		-	-	1,787	
Alleghany Co-Low Moor	761	822	(61)	61	-	-	-		-	-	-	
Amherst (Town)	914	2,801	(1,887)	-	-	-	(1,887)		-	(1,887)	-	
Aqua Virginia-L. Monticello	1,515	1,233	282	-	-	-	282		-	-	282	
Babcock & Wilcox, N.O.G.	1,523	477	1,046	-	-	-	1,046		-	-	1,046	
Buena Vista	3,426	8,897	(5,471)	-	-	-	(5,471)		-	(10,574)	5,103	
Chesterfield-Falling Cr.	15,380	16,492	(1,112)	1,112	-	-	-		-	-	-	
Chesterfield-Proctors Cr.	41,115	26,816	14,299	(1,112)	-	-	13,187		-	-	13,187	
Covington	4,568	4,550	18	-	-	-	18		-	-	18	
Crewe	327	26	301	-	-	-	301		301	-	-	
Dominion-Chesterfield	210	210	-	-	-	-	-		-	-	-	
DuPont-Spruance	7,816	11,795	(3,979)	-	-	-	(3,979)		-	(5,112)	1,133	
Georgia-Pacific	49,658	12,274	37,384	-	-	-	37,384		13,282	-	24,102	
Greif Packaging	29,694	9,898	19,796	-	-	-	19,796		14,847	-	4,949	
Henrico Co	114,209	57,263	56,946	-	-	-	56,946		27,695	-	29,251	
Honeywell-Hopewell	51,592	38,070	13,522	-	-	-	13,522		-	-	13,522	
Hopewell RWTF	76,139	54,964	21,175	-	-	-	21,175		7,894	-	13,281	
Lynchburg	33,501	32,892	609	-	-	-	609		548	-	61	
MeadWestvaco	159,892	49,490	110,402	-	-	-	110,402		110,402	-	-	
MSA-Lexington	4,568	1,371	3,197	-	-	-	3,197		3,197	-	-	
Philip Morris	2,650	2,436	214	-	-	-	214		-	-	214	
Richmond	68,250	68,250	-	-	-	-	-		-	-	-	
RWSA-Moores Creek	22,842	10,324	12,518	-	-	-	12,518		12,518	-	-	
South Central WWA	35,024	49,176	(14,152)	-	-	-	(14,152)		-	(14,152)	-	
Tyson Foods-Glen Allen	409	302	107	-	-	-	107		-	-	107	
								PRICE:	No Sale	No Sale	No Sale	
LOWER JAMES BASIN	373,247	364,276	8,971	-	-	-	8,971		-	-	8,971	
HRSD-Army Base	38,332	51,658	(13,326)	13,326	-	-	-		-	-	-	
HRSD-Boat Harbor	53,240	67,364	(14,124)	14,124	-	-	-		-	-	-	
HRSD-Ches/Eliz	51,110	68,823	(17,713)	17,713	-	-	-		-	-	-	
HRSD-James River	42,591	41,814	777	(777)	-	-	-		-	-	-	
HRSD-Nansemond	63,887	38,808	25,079	(25,079)	-	-	-		-	-	-	
HRSD-VIP	76,172	65,602	10,570	(1,599)	-	-	8,971		-	-	8,971	
HRSD-Williamsburg	47,915	30,207	17,708	(17,708)	-	-	-		-	-	-	

* For this Compliance Year, 0% of all Class A Credit Purchases are expected to be satisfied using Class B Credits.

** Expected Class B Credits are estimates only. Actual Class B Credits—and the resulting Class B sales price—will vary from estimates based on actual Delivered Loads in the Compliance Year.

JAMES Basin: Phosphorus Credit Ledger

Compliance Year:	2015	Credit Forecasts		Preliminary Use of Credits			Expected Net Credits	Credit Exchange (Pounds)			
		Delivered WLA	Expected Load	Expected Credits	In-Bubble Exchange	Private Exchange		WQIF-Held Credits	Class A Sales	Class A* Purchases	Class B** (expected)
								PRICE:	\$ 0.33	\$ 4.93	\$ 0.12
UPPER JAMES BASIN	731,313	481,377	249,936	-	-	(1,371)	248,565		204,541	(15,377)	59,401
Alleghany Co-L. Jackson	5,330	2,101	3,229	(122)	-	(1,371)	1,736		-	-	1,736
Alleghany Co-Low Moor	761	883	(122)	122	-	-	-		-	-	-
Amherst (Town)	914	2,801	(1,887)	-	-	-	(1,887)		-	(1,887)	-
Aqua Virginia-L. Monticello	1,515	1,264	251	-	-	-	251		-	-	251
Babcock & Wilcox, N.O.G.	1,523	477	1,046	-	-	-	1,046		-	-	1,046
Buena Vista	3,426	8,897	(5,471)	-	-	-	(5,471)		-	(7,526)	2,055
Chesterfield-Falling Cr.	15,380	16,811	(1,431)	1,431	-	-	-		-	-	-
Chesterfield-Proctors Cr.	41,115	27,136	13,979	(1,431)	(2,000)	-	10,548		-	-	10,548
Covington	4,568	4,550	18	-	-	-	18		-	-	18
Crewe	327	22	305	-	-	-	305		305	-	-
Dominion-Chesterfield	210	210	-	-	-	-	-		-	-	-
DuPont-Spruance	7,816	11,973	(4,157)	-	-	-	(4,157)		-	(5,964)	1,807
Georgia-Pacific	49,658	12,395	37,263	-	-	-	37,263		30,000	-	7,263
Greif Packaging	29,694	23,755	5,939	-	-	-	5,939		2,970	-	2,969
Henrico Co	114,209	58,979	55,230	-	(14,293)	-	40,937		36,843	-	4,094
Honeywell-Hopewell	51,592	38,070	13,522	-	-	-	13,522		-	-	13,522
Hopewell RWTF	76,139	55,391	20,748	-	-	-	20,748		7,126	-	13,622
Lynchburg	33,501	31,978	1,523	-	-	-	1,523		1,371	-	152
MeadWestvaco	159,892	49,490	110,402	-	-	-	110,402		110,402	-	-
MSA-Lexington	4,568	1,434	3,134	-	-	-	3,134		3,134	-	-
Philip Morris	2,650	2,436	214	-	-	-	214		-	-	214
Richmond	68,250	68,250	-	-	-	-	-		-	-	-
RWSA-Moores Creek	22,842	10,452	12,390	-	-	-	12,390		12,390	-	-
South Central WWA	35,024	51,317	(16,293)	-	16,293	-	-		-	-	-
Tyson Foods-Glen Allen	409	305	104	-	-	-	104		-	-	104
								PRICE:	No Sale	No Sale	No Sale
LOWER JAMES BASIN	373,247	339,251	33,996	-	-	-	33,996		-	-	33,996
HRSD-Army Base	38,332	24,118	14,214	(14,214)	-	-	-		-	-	-
HRSD-Boat Harbor	53,240	67,631	(14,391)	14,391	-	-	-		-	-	-
HRSD-Ches/Eliz	51,110	69,284	(18,174)	18,174	-	-	-		-	-	-
HRSD-James River	42,591	42,085	506	(506)	-	-	-		-	-	-
HRSD-Nansemond	63,887	39,590	24,297	(719)	-	-	23,578		-	-	23,578
HRSD-VIP	76,172	65,754	10,418	-	-	-	10,418		-	-	10,418
HRSD-Williamsburg	47,915	30,789	17,126	(17,126)	-	-	-		-	-	-

* For this Compliance Year, 0% of all Class A Credit Purchases are expected to be satisfied using Class B Credits.

** Expected Class B Credits are estimates only. Actual Class B Credits—and the resulting Class B sales price—will vary from estimates based on actual Delivered Loads in the Compliance Year.

JAMES Basin: Phosphorus Credit Ledger

Compliance Year:		2016		Credit Forecasts		Preliminary Use of Credits			Credit Exchange (Pounds)			
Facility Name	Delivered WLA	Expected Load	Expected Credits	In-Bubble Exchange	Private Exchange	WQIF-Held Credits	Expected Net Credits		Class A Sales	Class A* Purchases	Class B** (expected)	
								PRICE:	\$ 0.37	\$ 5.27	\$ 0.20	
UPPER JAMES BASIN	622,930	435,691	187,239	-	-	(904)	186,335		165,400	(13,206)	34,142	
Alleghany Co-L. Jackson	3,518	1,411	2,107	(121)	-	(904)	1,082		-	-	1,082	
Alleghany Co-Low Moor	502	623	(121)	121	-	-	-		-	-	-	
Amherst (Town)	603	1,044	(441)	-	-	-	(441)		-	(441)	-	
Aqua Virginia-L. Monticello	1,000	5,819	(4,819)	-	-	-	(4,819)		-	(4,819)	-	
Babcock & Wilcox, N.O.G.	1,005	315	690	-	-	-	690		-	-	690	
Buena Vista	2,261	5,872	(3,611)	-	-	-	(3,611)		-	(3,611)	-	
Chesterfield-Falling Cr.	15,380	17,131	(1,751)	1,751	-	-	-		-	-	-	
Chesterfield-Proctors Cr.	41,115	27,456	13,659	(1,751)	(2,000)	-	9,908		-	-	9,908	
Covington	3,015	3,003	12	-	-	-	12		-	-	12	
Crewe	350	25	325	-	-	-	325		325	-	-	
Dominion-Chesterfield	210	210	-	-	-	-	-		-	-	-	
DuPont-Spruance	7,816	12,151	(4,335)	-	-	-	(4,335)		-	(4,335)	-	
Georgia-Pacific	32,774	8,261	24,513	-	-	-	24,513		22,000	-	2,513	
Greif Packaging	19,598	13,065	6,533	-	-	-	6,533		6,533	-	-	
Henrico Co	114,209	60,748	53,461	-	(15,576)	-	37,885		34,097	-	3,788	
Honeywell-Hopewell	51,592	38,070	13,522	-	-	-	13,522		-	-	13,522	
Hopewell RWTF	76,139	55,814	20,325	-	-	-	20,325		18,293	-	2,033	
Lynchburg	22,111	20,402	1,709	-	-	-	1,709		1,367	-	342	
MeadWestvaco	105,529	32,664	72,865	-	-	-	72,865		72,865	-	-	
MSA-Lexington	3,015	995	2,020	-	-	-	2,020		2,020	-	-	
Philip Morris	2,650	2,436	214	-	-	-	214		-	-	214	
Richmond	68,250	68,250	-	-	-	-	-		-	-	-	
RWSA-Moores Creek	15,076	7,176	7,900	-	-	-	7,900		7,900	-	-	
South Central WWA	35,024	52,600	(17,576)	-	17,576	-	-		-	-	-	
Tyson Foods-Glen Allen	188	150	38	-	-	-	38		-	-	38	
								PRICE:	No Sale	No Sale	No Sale	
LOWER JAMES BASIN	382,258	341,810	40,448	-	-	-	40,448		-	-	40,448	
HRSD-Army Base	38,332	24,128	14,204	(14,204)	-	-	-		-	-	-	
HRSD-Boat Harbor	53,240	67,900	(14,660)	14,660	-	-	-		-	-	-	
HRSD-Ches/Eliz	51,110	69,749	(18,639)	18,639	-	-	-		-	-	-	
HRSD-James River	42,591	42,358	233	(233)	-	-	-		-	-	-	
HRSD-Nansemond	63,887	40,388	23,499	(2,329)	-	-	21,170		-	-	21,170	
HRSD-VIP	85,183	65,905	19,278	-	-	-	19,278		-	-	19,278	
HRSD-Williamsburg	47,915	31,382	16,533	(16,533)	-	-	-		-	-	-	

* For this Compliance Year, 0% of all Class A Credit Purchases are expected to be satisfied using Class B Credits.

** Expected Class B Credits are estimates only. Actual Class B Credits—and the resulting Class B sales price—will vary from estimates based on actual Delivered Loads in the Compliance Year.

JAMES Basin: Phosphorus Credit Ledger

Compliance Year:	2017	Credit Forecasts		Preliminary Use of Credits			Credit Exchange (Pounds)							
Facility Name	Delivered WLA	Expected Load	Expected Credits	In-Bubble Exchange	Private Exchange	WQIF-Held Credits	Expected Net Credits	PRICE:	Class A Sales	Class A* Purchases	Class B** (expected)			
								\$	0.26	\$	5.65	\$	0.14	
UPPER JAMES BASIN	622,930	434,976	187,954	-	-	(904)	187,050					162,410	(8,474)	33,114
Alleghany Co-L. Jackson	3,518	905	2,613	(754)	-	(904)	955		-	-	955			
Alleghany Co-Low Moor	502	1,256	(754)	754	-	-	-		-	-	-			
Amherst (Town)	603	949	(346)	-	-	-	(346)		-	(346)	-			
Aqua Virginia-L. Monticello	1,000	683	317	-	-	-	317		-	-	317			
Babcock & Wilcox, N.O.G.	1,005	445	560	-	-	-	560		-	-	560			
Buena Vista	2,261	5,872	(3,611)	-	-	-	(3,611)		-	(3,611)	-			
Chesterfield-Falling Cr.	15,380	17,451	(2,071)	2,071	-	-	-		-	-	-			
Chesterfield-Proctors Cr.	41,115	27,776	13,339	(2,071)	(2,000)	-	9,268		-	-	9,268			
Covington	3,015	3,003	12	-	-	-	12		-	-	12			
Crewe	350	26	324	-	-	-	324		324	-	-			
Dominion-Chesterfield	210	210	-	-	-	-	-		-	-	-			
DuPont-Spruance	7,816	12,333	(4,517)	-	-	-	(4,517)		-	(4,517)	-			
Georgia-Pacific	32,774	8,342	24,432	-	-	-	24,432		22,000	-	2,432			
Greif Packaging	19,598	13,065	6,533	-	-	-	6,533		6,533	-	-			
Henrico Co	114,209	62,571	51,638	-	(16,891)	-	34,747		31,272	-	3,475			
Honeywell-Hopewell	51,592	38,070	13,522	-	-	-	13,522		-	-	13,522			
Hopewell RWTF	76,139	56,235	19,904	-	-	-	19,904		17,914	-	1,990			
Lynchburg	22,111	20,543	1,568	-	-	-	1,568		1,200	-	368			
MeadWestvaco	105,529	32,664	72,865	-	-	-	72,865		72,865	-	-			
MSA-Lexington	3,015	1,397	1,618	-	-	-	1,618		1,618	-	-			
Philip Morris	2,650	2,436	214	-	-	-	214		-	-	214			
Richmond	68,250	68,250	-	-	-	-	-		-	-	-			
RWSA-Moores Creek	15,076	6,392	8,684	-	-	-	8,684		8,684	-	-			
South Central WWA	35,024	53,915	(18,891)	-	18,891	-	-		-	-	-			
Tyson Foods-Glen Allen	188	187	1	-	-	-	1		-	-	1			
								PRICE:	No Sale	No Sale	No Sale			
LOWER JAMES BASIN	382,258	344,758	37,500	-	-	-	37,500					-	-	37,500
HRSD-Army Base	38,332	33,480	4,852	(4,852)	-	-	-		-	-	-			
HRSD-Boat Harbor	53,240	43,333	9,907	(9,907)	-	-	-		-	-	-			
HRSD-Ches/Eliz	51,110	48,682	2,428	(2,428)	-	-	-		-	-	-			
HRSD-James River	42,591	41,258	1,333	(1,333)	-	-	-		-	-	-			
HRSD-Nansemond	63,887	82,815	(18,928)	18,928	-	-	-		-	-	-			
HRSD-VIP	85,183	64,808	20,375	-	-	-	20,375		-	-	20,375			
HRSD-Williamsburg	47,915	30,382	17,533	(408)	-	-	17,125		-	-	17,125			

*** For this Compliance Year, 0% of all Class A Credit Purchases are expected to be satisfied using Class B Credits.**

**** Expected Class B Credits are estimates only. Actual Class B Credits—and the resulting Class B sales price—will vary from estimates based on actual Delivered Loads in the Compliance Year.**

JAMES Basin: Phosphorus Credit Ledger

Compliance Year:	2018	Credit Forecasts		Preliminary Use of Credits			Credit Exchange (Pounds)				
Facility Name	Delivered WLA	Expected Load	Expected Credits	In-Bubble Exchange	Private Exchange	WQIF-Held Credits	Expected Net Credits		Class A Sales	Class A* Purchases	Class B** (expected)
								PRICE:	\$ 0.27	\$ 5.70	\$ 0.14
UPPER JAMES BASIN	622,930	438,940	183,990	-	-	(904)	183,086	158,980	(8,564)	32,670	
Alleghany Co-L. Jackson	3,518	905	2,613	(754)	-	(904)	955	-	-	955	
Alleghany Co-Low Moor	502	1,256	(754)	754	-	-	-	-	-	-	
Amherst (Town)	603	949	(346)	-	-	-	(346)	-	(346)	-	
Aqua Virginia-L. Monticello	1,000	683	317	-	-	-	317	-	-	317	
Babcock & Wilcox, N.O.G.	1,005	445	560	-	-	-	560	-	-	560	
Buena Vista	2,261	5,872	(3,611)	-	-	-	(3,611)	-	(3,611)	-	
Chesterfield-Falling Cr.	15,380	17,771	(2,391)	2,391	-	-	-	-	-	-	
Chesterfield-Proctors Cr.	41,115	28,095	13,020	(2,391)	(2,000)	-	8,629	-	-	8,629	
Covington	3,015	3,003	12	-	-	-	12	-	-	12	
Crewe	350	48	302	-	-	-	302	302	-	-	
Dominion-Chesterfield	210	210	-	-	-	-	-	-	-	-	
DuPont-Spruance	7,816	12,423	(4,607)	-	-	-	(4,607)	-	(4,607)	-	
Georgia-Pacific	32,774	8,432	24,342	-	-	-	24,342	22,000	-	2,342	
Greif Packaging	19,598	13,065	6,533	-	-	-	6,533	6,533	-	-	
Henrico Co	114,209	64,447	49,762	-	(18,240)	-	31,522	28,371	-	3,151	
Honeywell-Hopewell	51,592	38,070	13,522	-	-	-	13,522	-	-	13,522	
Hopewell RWTF	76,139	56,708	19,431	-	-	-	19,431	17,488	-	1,943	
Lynchburg	22,111	20,571	1,540	-	-	-	1,540	1,200	-	340	
MeadWestvaco	105,529	32,664	72,865	-	-	-	72,865	72,865	-	-	
MSA-Lexington	3,015	734	2,281	-	-	-	2,281	1,597	-	684	
Philip Morris	2,650	2,436	214	-	-	-	214	-	-	214	
Richmond	68,250	68,250	-	-	-	-	-	-	-	-	
RWSA-Moores Creek	15,076	6,452	8,624	-	-	-	8,624	8,624	-	-	
South Central WWA	35,024	55,264	(20,240)	-	20,240	-	-	-	-	-	
Tyson Foods-Glen Allen	188	187	1	-	-	-	1	-	-	1	
								PRICE:	No Sale	No Sale	No Sale
LOWER JAMES BASIN	382,258	349,859	32,399	-	-	-	32,399	-	-	32,399	
HRSD-Army Base	38,332	33,058	5,274	(5,274)	-	-	-	-	-	-	
HRSD-Boat Harbor	53,240	43,305	9,935	(9,935)	-	-	-	-	-	-	
HRSD-Ches/Eliz	51,110	54,087	(2,977)	2,977	-	-	-	-	-	-	
HRSD-James River	42,591	40,966	1,625	(1,625)	-	-	-	-	-	-	
HRSD-Nansemond	63,887	83,521	(19,634)	19,634	-	-	-	-	-	-	
HRSD-VIP	85,183	65,889	19,294	-	-	-	19,294	-	-	19,294	
HRSD-Williamsburg	47,915	29,033	18,882	(5,777)	-	-	13,105	-	-	13,105	

*** For this Compliance Year, 0% of all Class A Credit Purchases are expected to be satisfied using Class B Credits.**

**** Expected Class B Credits are estimates only. Actual Class B Credits—and the resulting Class B sales price—will vary from estimates based on actual Delivered Loads in the Compliance Year.**

James River Basin

Supplemental Information for Individual Facilities



Owner Bubble: Alleghany County

The facilities listed below have received an aggregated mass load limit pursuant to 9 VAC 25-820-70, Part 1.B.2., which is also referred to as an “owner bubble”. Accordingly, compliance is determined solely on an aggregate basis rather than by comparison of individual facility loads with respective individual WLAs.

The “Credit Transferred within Bubble” section of each table forecasts the use of Credits within the owner bubble during each Compliance Year, and must necessarily sum to zero. The specific Credit transfers shown in this table are provided for internal planning purposes only and, accordingly, are not binding and may change based on the actual performance of individual facilities within the bubble.

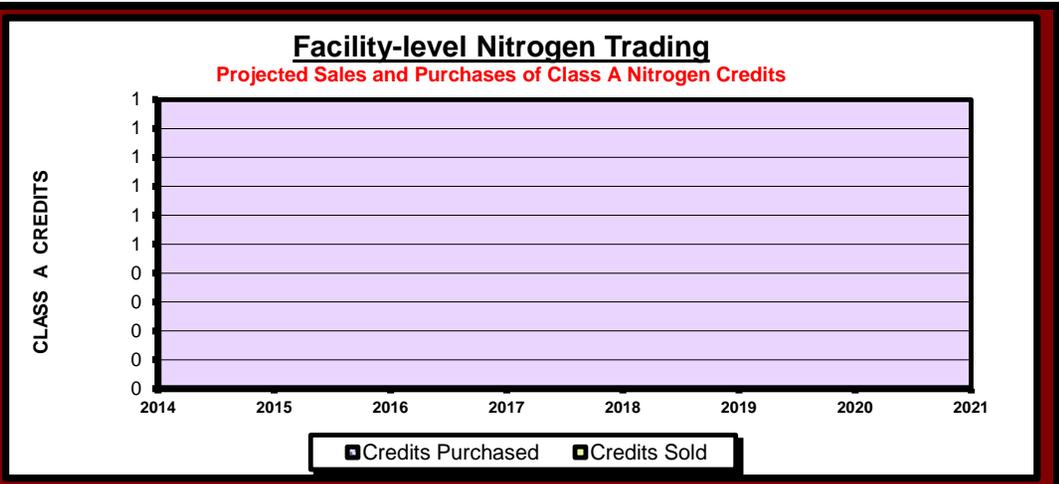
Expected Net Credits for an owner bubble may be either positive or negative. If Expected Net Credits is positive, the owner may pledge a percentage of such Credits to the Exchange. If Expected Net Credits is negative, Net Expected Credits identifies the number of Credits that must be purchased to comply with the aggregate Delivered WLA of the bubble.

NITROGEN Credits	Exchange 5-year Planning Period					Future Projections		
	2014	2015	2016	2017	2018	2019	2020	2021
Credits Transferred within Bubble								
Lower Jackson	-	-	-	-	-	(63)	(237)	(411)
Low Moor	-	-	-	-	-	63	237	411
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
TOTAL (must sum to 0)	-	-	-	-	-	-	-	-
Credits Available outside Bubble								
Lower Jackson	3,700	3,746	3,088	5,226	5,226	4,926	4,514	4,103
Low Moor	767	621	412	198	198	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Expected Net Credits	4,467	4,367	3,500	5,424	5,424	4,926	4,514	4,103
Class A Sales (Purchases)	0	0	0	0	0	0	0	0
<i>Expected Class B Credits</i>	<i>4,467</i>	<i>4,367</i>	<i>3,500</i>	<i>5,424</i>	<i>5,424</i>	<i>4,926</i>	<i>4,514</i>	<i>4,103</i>
<i>WQIF-Held Credits</i>	<i>4,934</i>	<i>4,934</i>	<i>4,276</i>	<i>4,276</i>	<i>4,276</i>	<i>4,276</i>	<i>4,276</i>	<i>4,276</i>

PHOSPHORUS Credits	Exchange 5-year Planning Period					Future Projections		
	2014	2015	2016	2017	2018	2019	2020	2021
Credits Transferred within Bubble								
Lower Jackson	(61)	(122)	(121)	(754)	(754)	(905)	(1,006)	(1,106)
Low Moor	61	122	121	754	754	905	1,006	1,106
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
TOTAL (must sum to 0)	-	-	-	-	-	-	-	-
Credits Available outside Bubble								
Lower Jackson	1,787	1,736	1,082	955	955	774	643	513
Low Moor	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Expected Net Credits	1,787	1,736	1,082	955	955	774	643	513
Class A Sales (Purchases)	0	0	0	0	0	0	0	0
<i>Expected Class B Credits</i>	<i>1,787</i>	<i>1,736</i>	<i>1,082</i>	<i>955</i>	<i>955</i>	<i>774</i>	<i>643</i>	<i>513</i>
<i>WQIF-Held Credits</i>	<i>1,371</i>	<i>1,371</i>	<i>904</i>	<i>904</i>	<i>904</i>	<i>904</i>	<i>904</i>	<i>904</i>

NITROGEN FACILITY SUMMARY

Allegheny Co-L. Jackson
 UPPER JAMES Trading Basin

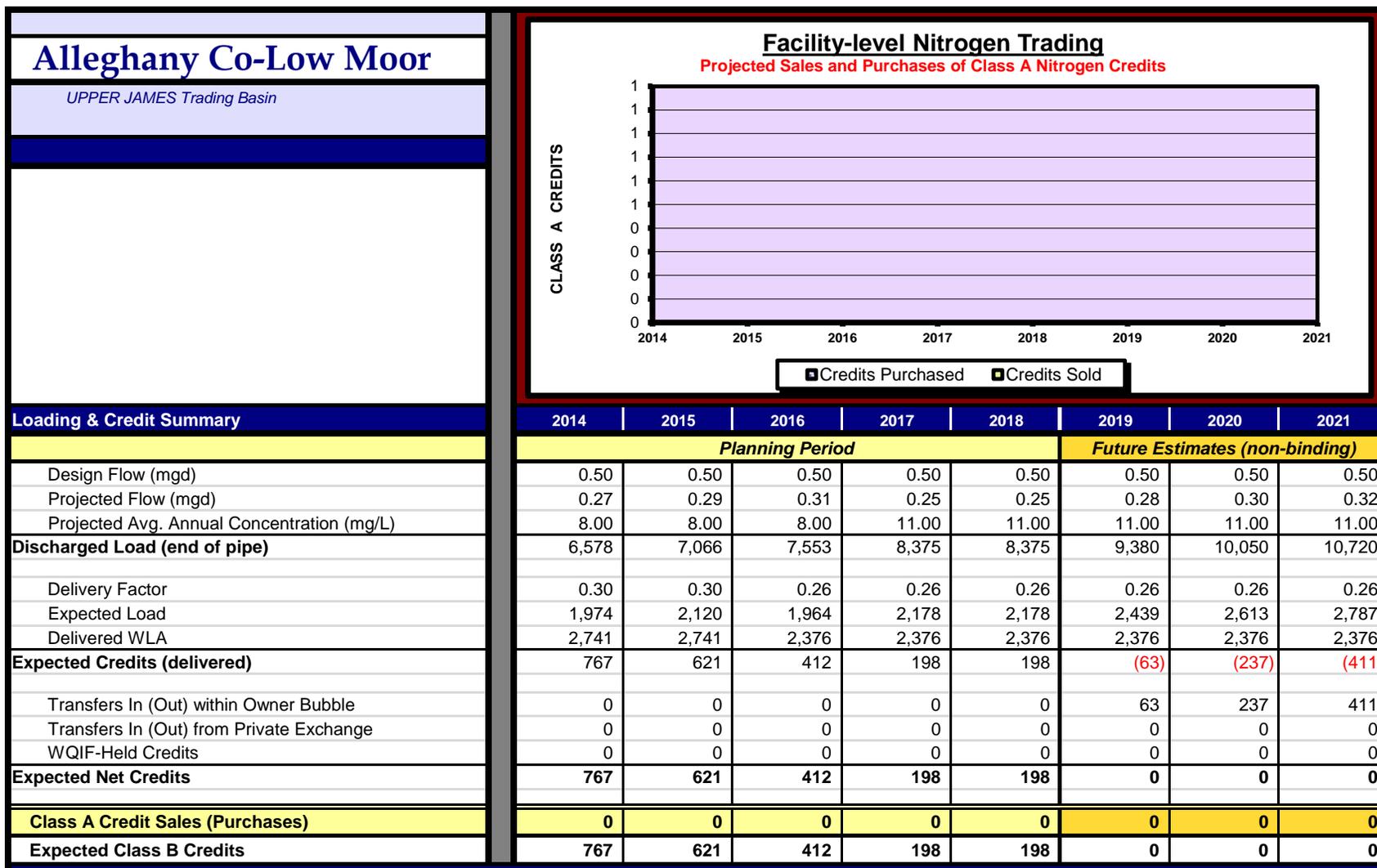


Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

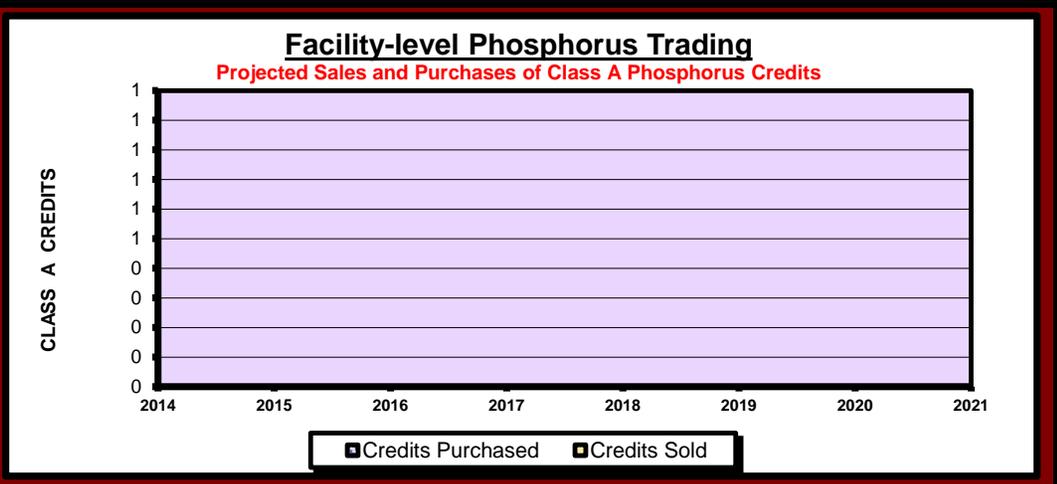
2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60
2.31	2.30	2.34	1.50	1.50	1.55	1.60	1.65
5.00	5.00	5.00	6.00	6.00	6.00	6.00	6.00
35,176	35,024	35,633	27,410	27,410	28,324	29,237	30,151
0.30	0.30	0.26	0.26	0.26	0.26	0.26	0.26
10,553	10,507	9,265	7,127	7,127	7,364	7,602	7,839
19,187	19,187	16,629	16,629	16,629	16,629	16,629	16,629
8,634	8,680	7,364	9,502	9,502	9,265	9,027	8,790
0	0	0	0	0	(63)	(237)	(411)
0	0	0	0	0	0	0	0
(4,934)	(4,934)	(4,276)	(4,276)	(4,276)	(4,276)	(4,276)	(4,276)
3,700	3,746	3,088	5,226	5,226	4,926	4,514	4,103
0	0	0	0	0	0	0	0
3,700	3,746	3,088	5,226	5,226	4,926	4,514	4,103

NITROGEN FACILITY SUMMARY



PHOSPHORUS FACILITY SUMMARY

Allegheny Co-L. Jackson
 UPPER JAMES Trading Basin



Loading & Credit Summary

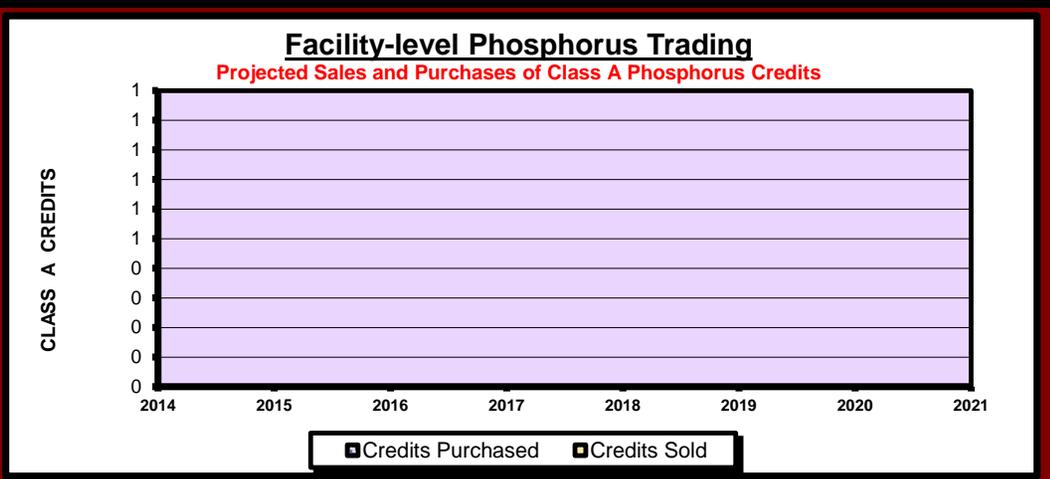
Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60
2.31	2.30	2.34	1.50	1.50	1.55	1.60	1.65
0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
2,111	2,101	2,138	1,371	1,371	1,416	1,462	1,508
1.00	1.00	0.66	0.66	0.66	0.66	0.66	0.66
2,111	2,101	1,411	905	905	935	965	995
5,330	5,330	3,518	3,518	3,518	3,518	3,518	3,518
3,219	3,229	2,107	2,613	2,613	2,583	2,553	2,523
(61)	(122)	(121)	(754)	(754)	(905)	(1,006)	(1,106)
0	0	0	0	0	0	0	0
(1,371)	(1,371)	(904)	(904)	(904)	(904)	(904)	(904)
1,787	1,736	1,082	955	955	774	643	513
0	0	0	0	0	0	0	0
1,787	1,736	1,082	955	955	774	643	513

PHOSPHORUS FACILITY SUMMARY

Allegheny Co-Low Moor

UPPER JAMES Trading Basin



Loading & Credit Summary

Design Flow (mgd)	
Projected Flow (mgd)	
Projected Avg. Annual Concentration (mg/L)	
Discharged Load (end of pipe)	
Delivery Factor	
Expected Load	
Delivered WLA	
Expected Credits (delivered)	
Transfers In (Out) within Owner Bubble	
Transfers In (Out) from Private Exchange	
WQIF-Held Credits	
Expected Net Credits	
Class A Credit Sales (Purchases)	
Expected Class B Credits	

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
0.27	0.29	0.31	0.25	0.25	0.28	0.30	0.32
1.00	1.00	1.00	2.50	2.50	2.50	2.50	2.50
822	883	944	1,903	1,903	2,132	2,284	2,436
1.00	1.00	0.66	0.66	0.66	0.66	0.66	0.66
822	883	623	1,256	1,256	1,407	1,508	1,608
761	761	502	502	502	502	502	502
(61)	(122)	(121)	(754)	(754)	(905)	(1,006)	(1,106)
61	122	121	754	754	905	1,006	1,106
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

Allegheny County - Additional Information

Under an Agreement dated September 18, 2007, the Town of Clifton Forge's Plant was converted to a regional pump station and wastewater from that facility is pumped to the new regional Lower Jackson Plant owned and operated by Allegheny County. Flows from the Town of Clifton Forge's Plant ceased on October 8, 2011, the same day that the new regional Lower Jackson Plant began to discharge.

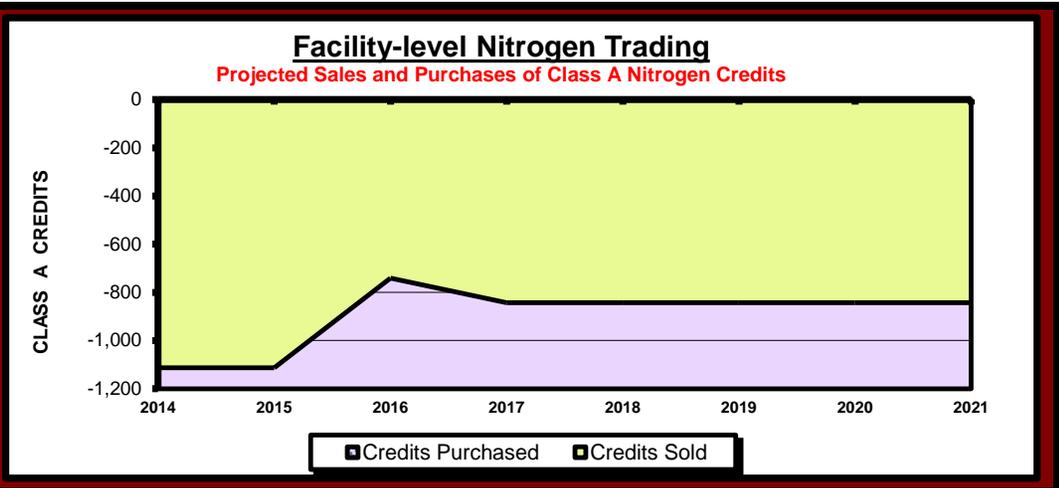
The County applied to DEQ for aggregated mass load limits in accordance with Part I B 3 (Facility Consolidation) of the Watershed General Permit. On February 13, 2012, DEQ notified the County that the request to consolidate load limits was accepted, effective January 1, 2012. The 2014 Annual Update and the preceding nitrogen and phosphorus facility summaries for the regional Lower Jackson Plant reflect the following combined wasteload allocations, consistent with the updated registration list for the James Basin:

- TN: 8,223 (Lower Jackson Plant) + 10,964 (Clifton Forge) = 19,187 delivered pounds
- TP: 2,284 (Lower Jackson Plant) + 3,046 (Clifton Forge) = 5,330 delivered pounds

These consolidated wasteload allocations are based on a combined design flow of 3.5 mgd. The regional Lower Jackson Plant has been constructed and received a CTO for a design flow of 2.6 mgd. Accordingly, 4,934 Nitrogen Credits and 1,371 Phosphorus Credits are WQIF-Held in accordance with the Watershed General Permit.

NITROGEN FACILITY SUMMARY

Amherst (Town)
<i>UPPER JAMES Trading Basin</i>

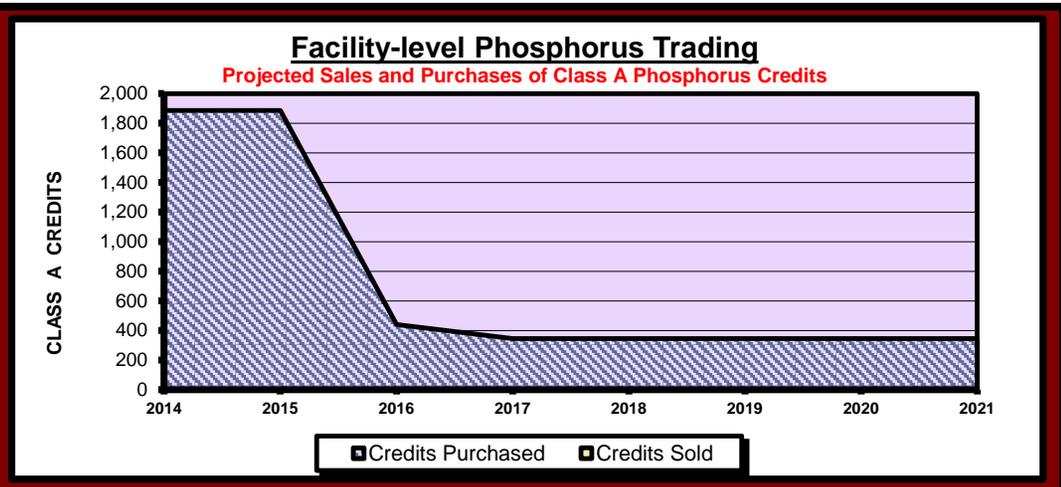


Loading & Credit Summary	
Design Flow (mgd)	
Projected Flow (mgd)	
Projected Avg. Annual Concentration (mg/L)	
Discharged Load (end of pipe)	
Delivery Factor	
Expected Load	
Delivered WLA	
Expected Credits (delivered)	
Transfers In (Out) within Owner Bubble	
Transfers In (Out) from Private Exchange	
WQIF-Held Credits	
Expected Net Credits	
Class A Credit Sales (Purchases)	
Expected Class B Credits	

2014	2015	2016	2017	2018	2019	2020	2021
<i>Planning Period</i>					<i>Future Estimates (non-binding)</i>		
0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
0.44	0.44	0.44	0.40	0.40	0.40	0.40	0.40
5.46	5.46	4.93	4.93	4.93	4.93	4.93	4.93
7,317	7,317	6,606	6,006	6,006	6,006	6,006	6,006
0.61	0.61	0.34	0.34	0.34	0.34	0.34	0.34
4,463	4,463	2,246	2,042	2,042	2,042	2,042	2,042
6,688	6,688	3,728	3,728	3,728	3,728	3,728	3,728
2,225	2,225	1,482	1,686	1,686	1,686	1,686	1,686
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
2,225	2,225	1,482	1,686	1,686	1,686	1,686	1,686
1,113	1,113	741	843	843	843	843	843
1,112	1,112	741	843	843	843	843	843

PHOSPHORUS FACILITY SUMMARY

Amherst (Town)
<i>UPPER JAMES Trading Basin</i>

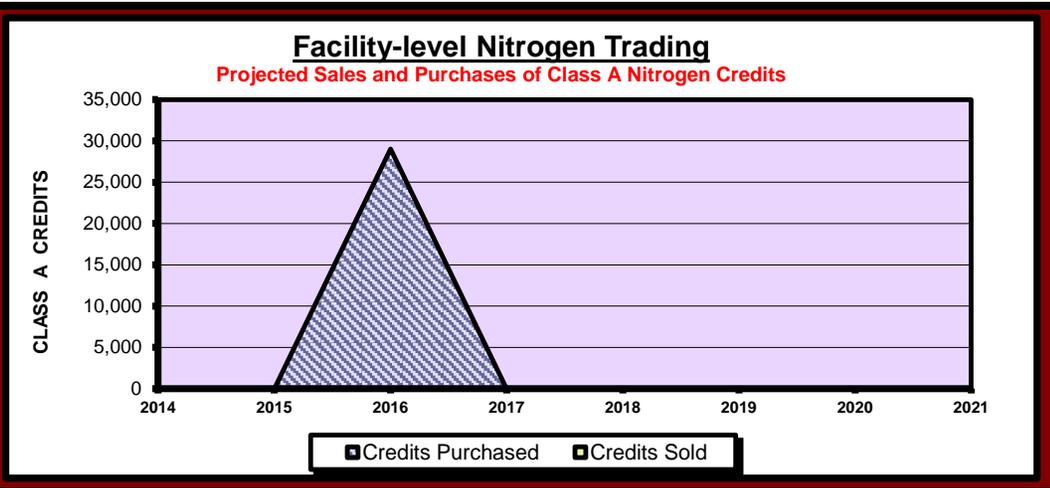


Loading & Credit Summary	
Design Flow (mgd)	0.60
Projected Flow (mgd)	0.44
Projected Avg. Annual Concentration (mg/L)	2.09
Discharged Load (end of pipe)	2,801
Delivery Factor	1.00
Expected Load	2,801
Delivered WLA	914
Expected Credits (delivered)	(1,887)
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	(1,887)
Class A Credit Sales (Purchases)	(1,887)
Expected Class B Credits	0

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
0.44	0.44	0.44	0.40	0.40	0.40	0.40	0.40
2.09	2.09	1.18	1.18	1.18	1.18	1.18	1.18
2,801	2,801	1,581	1,438	1,438	1,438	1,438	1,438
1.00	1.00	0.66	0.66	0.66	0.66	0.66	0.66
2,801	2,801	1,044	949	949	949	949	949
914	914	603	603	603	603	603	603
(1,887)	(1,887)	(441)	(346)	(346)	(346)	(346)	(346)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
(1,887)	(1,887)	(441)	(346)	(346)	(346)	(346)	(346)
0	0	0	0	0	0	0	0

NITROGEN FACILITY SUMMARY

Aqua Virginia-L. Monticello
 UPPER JAMES Trading Basin



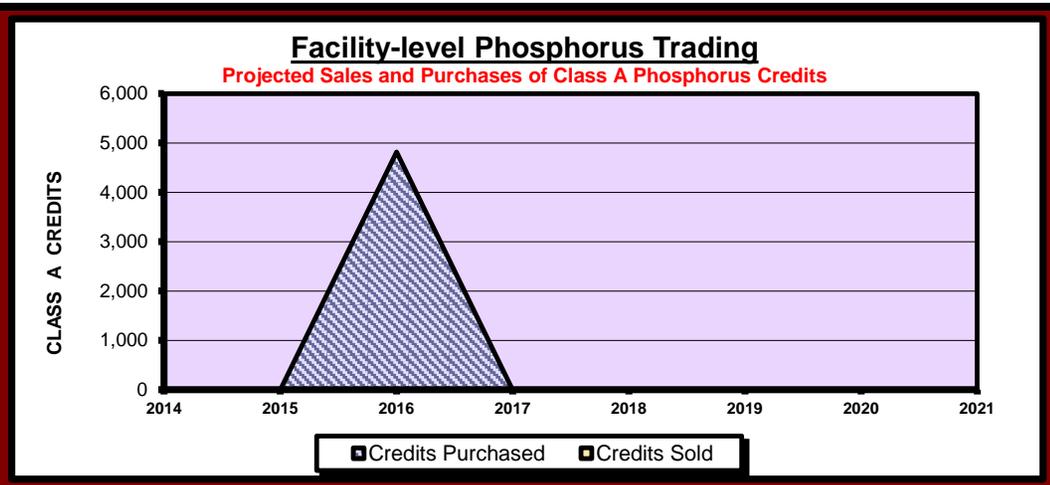
Loading & Credit Summary

Design Flow (mgd)	1.00
Projected Flow (mgd)	0.81
Projected Avg. Annual Concentration (mg/L)	6.00
Discharged Load (end of pipe)	14,801
Delivery Factor	0.61
Expected Load	9,029
Delivered WLA	11,091
Expected Credits (delivered)	2,062
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	2,062
Class A Credit Sales (Purchases)	0
Expected Class B Credits	2,062

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
0.81	0.83	0.67	0.68	0.68	0.69	0.70	0.71
6.00	6.00	30.00	6.00	6.00	6.00	6.00	6.00
14,801	15,167	61,508	12,426	12,426	12,609	12,791	12,974
0.61	0.61	0.67	0.67	0.67	0.67	0.67	0.67
9,029	9,252	41,210	8,325	8,325	8,448	8,570	8,693
11,091	11,091	12,182	12,182	12,182	12,182	12,182	12,182
2,062	1,839	(29,028)	3,857	3,857	3,734	3,612	3,489
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
2,062	1,839	(29,028)	3,857	3,857	3,734	3,612	3,489
0	0	(29,028)	0	0	0	0	0
2,062	1,839	0	3,857	3,857	3,734	3,612	3,489

PHOSPHORUS FACILITY SUMMARY

Aqua Virginia-L. Monticello
 UPPER JAMES Trading Basin



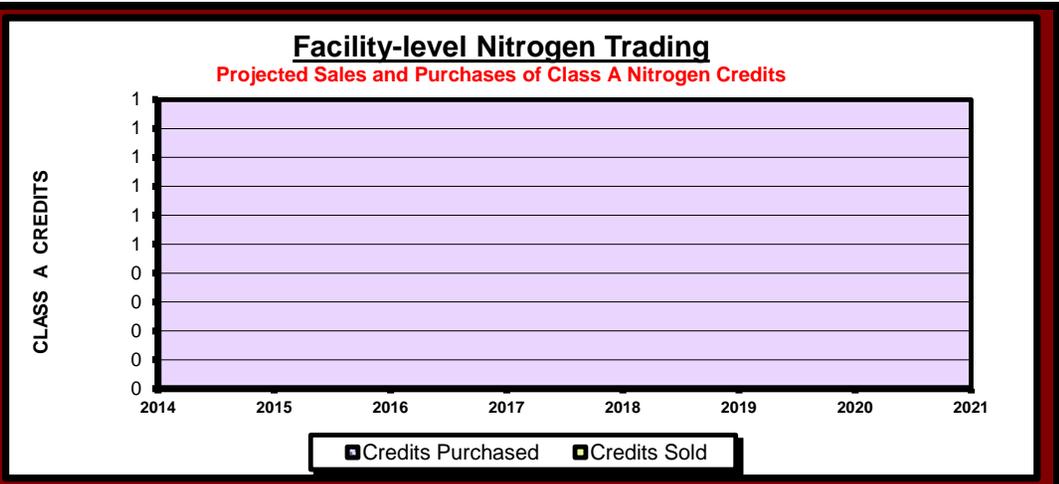
Loading & Credit Summary

Design Flow (mgd)	1.00
Projected Flow (mgd)	0.81
Projected Avg. Annual Concentration (mg/L)	0.50
Discharged Load (end of pipe)	1,233
Delivery Factor	1.00
Expected Load	1,233
Delivered WLA	1,515
Expected Credits (delivered)	282
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	282
Class A Credit Sales (Purchases)	0
Expected Class B Credits	282

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
0.81	0.83	0.67	0.68	0.68	0.69	0.70	0.71
0.50	0.50	4.30	0.50	0.50	0.50	0.50	0.50
1,233	1,264	8,816	1,035	1,035	1,051	1,066	1,081
1.00	1.00	0.66	0.66	0.66	0.66	0.66	0.66
1,233	1,264	5,819	683	683	693	704	714
1,515	1,515	1,000	1,000	1,000	1,000	1,000	1,000
282	251	(4,819)	317	317	307	296	286
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
282	251	(4,819)	317	317	307	296	286
0	0	(4,819)	0	0	0	0	0
282	251	0	317	317	307	296	286

NITROGEN FACILITY SUMMARY

Babcock & Wilcox, N.O.G.
 UPPER JAMES Trading Basin



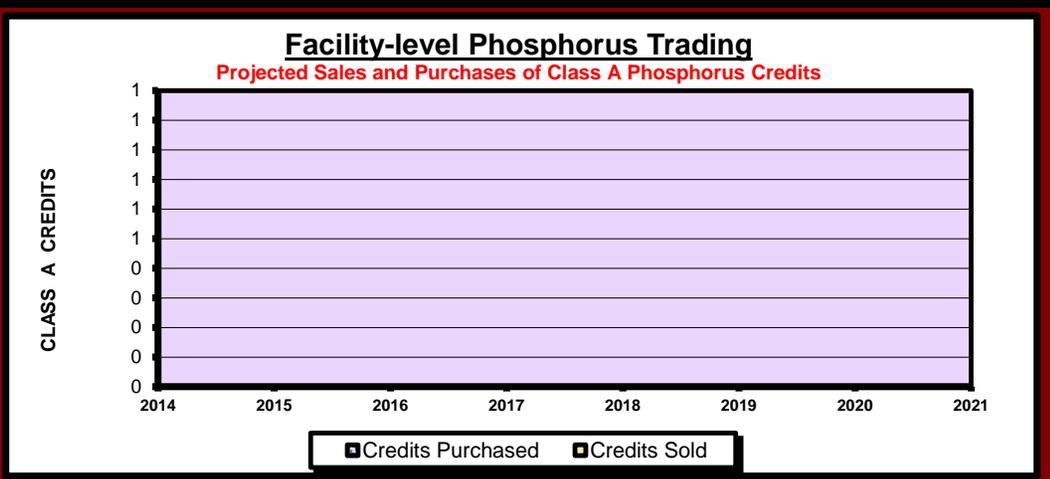
Loading & Credit Summary

Design Flow (mgd)	1.00
Projected Flow (mgd)	0.54
Projected Avg. Annual Concentration (mg/L)	113.70
Discharged Load (end of pipe)	186,991
Delivery Factor	0.61
Expected Load	114,065
Delivered WLA	114,070
Expected Credits (delivered)	5
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	5
Class A Credit Sales (Purchases)	0
Expected Class B Credits	5

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
113.70	113.70	113.70	113.70	113.70	113.70	113.70	113.70
186,991	186,991	186,991	186,991	186,991	186,991	186,991	186,991
0.61	0.61	0.65	0.65	0.65	0.65	0.65	0.65
114,065	114,065	121,544	121,544	121,544	121,544	121,544	121,544
114,070	114,070	121,550	121,550	121,550	121,550	121,550	121,550
5	5	6	6	6	6	6	6
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
5	5	6	6	6	6	6	6
0	0	0	0	0	0	0	0
5	5	6	6	6	6	6	6

PHOSPHORUS FACILITY SUMMARY

Babcock & Wilcox, N.O.G.
 UPPER JAMES Trading Basin



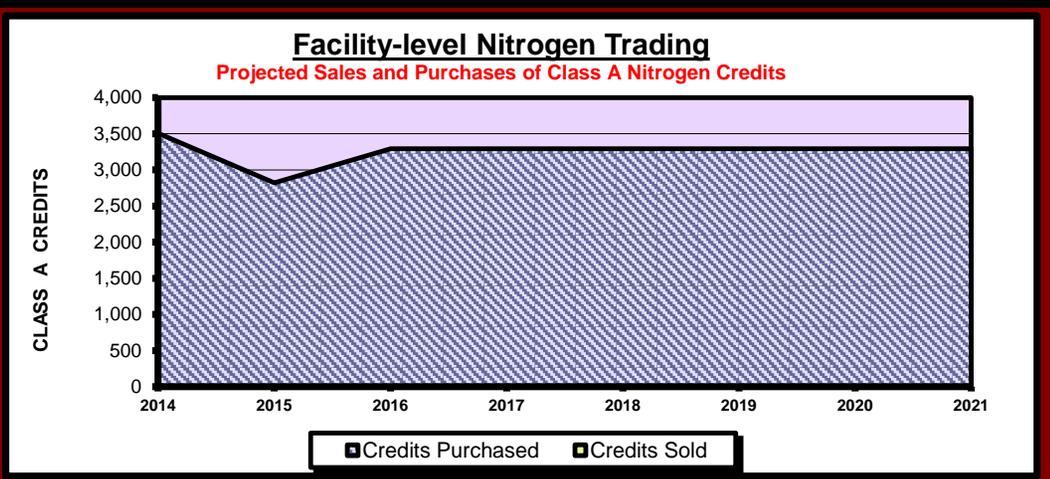
Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
0.29	0.29	0.29	0.41	0.41	0.41	0.41	0.41
477	477	477	674	674	674	674	674
1.00	1.00	0.66	0.66	0.66	0.66	0.66	0.66
477	477	315	445	445	445	445	445
1,523	1,523	1,005	1,005	1,005	1,005	1,005	1,005
1,046	1,046	690	560	560	560	560	560
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
1,046	1,046	690	560	560	560	560	560
0	0	0	0	0	0	0	0
1,046	1,046	690	560	560	560	560	560

NITROGEN FACILITY SUMMARY

Buena Vista
UPPER JAMES Trading Basin



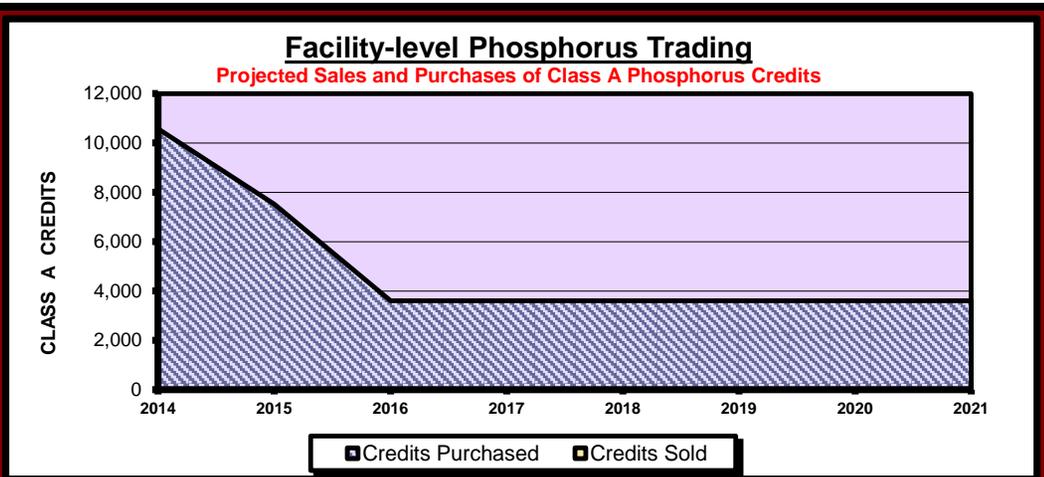
Loading & Credit Summary

Design Flow (mgd)	2.25
Projected Flow (mgd)	1.31
Projected Avg. Annual Concentration (mg/L)	11.78
Discharged Load (end of pipe)	46,998
Delivery Factor	0.30
Expected Load	14,100
Delivered WLA	12,335
Expected Credits (delivered)	(1,765)
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	(1,765)
Class A Credit Sales (Purchases)	(3,508)
Expected Class B Credits	1,743

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25
1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31
11.78	11.78	11.78	11.78	11.78	11.78	11.78	11.78
46,998	46,998	46,998	46,998	46,998	46,998	46,998	46,998
0.30	0.30	0.56	0.56	0.56	0.56	0.56	0.56
14,100	14,100	26,319	26,319	26,319	26,319	26,319	26,319
12,335	12,335	23,024	23,024	23,024	23,024	23,024	23,024
(1,765)	(1,765)	(3,295)	(3,295)	(3,295)	(3,295)	(3,295)	(3,295)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
(1,765)	(1,765)	(3,295)	(3,295)	(3,295)	(3,295)	(3,295)	(3,295)
(3,508)	(2,821)	(3,295)	(3,295)	(3,295)	(3,295)	(3,295)	(3,295)
1,743	1,056	0	0	0	0	0	0

PHOSPHORUS FACILITY SUMMARY

Buena Vista
<i>UPPER JAMES Trading Basin</i>



Loading & Credit Summary

Design Flow (mgd)	2.25
Projected Flow (mgd)	1.31
Projected Avg. Annual Concentration (mg/L)	2.23
Discharged Load (end of pipe)	8,897
Delivery Factor	1.00
Expected Load	8,897
Delivered WLA	3,426
Expected Credits (delivered)	(5,471)
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	(5,471)
Class A Credit Sales (Purchases)	(10,574)
Expected Class B Credits	5,103

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25
1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31
2.23	2.23	2.23	2.23	2.23	2.23	2.23	2.23
8,897	8,897	8,897	8,897	8,897	8,897	8,897	8,897
1.00	1.00	0.66	0.66	0.66	0.66	0.66	0.66
8,897	8,897	5,872	5,872	5,872	5,872	5,872	5,872
3,426	3,426	2,261	2,261	2,261	2,261	2,261	2,261
(5,471)	(5,471)	(3,611)	(3,611)	(3,611)	(3,611)	(3,611)	(3,611)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
(5,471)	(5,471)	(3,611)	(3,611)	(3,611)	(3,611)	(3,611)	(3,611)
(10,574)	(7,526)	(3,611)	(3,611)	(3,611)	(3,611)	(3,611)	(3,611)
5,103	2,055	0	0	0	0	0	0

Owner Bubble: Chesterfield County

The facilities listed below have received an aggregated mass load limit pursuant to 9 VAC 25-820-70, Part 1.B.2., which is also referred to as an “owner bubble”. Accordingly, compliance is determined solely on an aggregate basis rather than by comparison of individual facility loads with respective individual WLAs.

The “Credit Transferred within Bubble” section of each table forecasts the use of Credits within the owner bubble during each Compliance Year, and must necessarily sum to zero. The specific Credit transfers shown in this table are provided for internal planning purposes only and, accordingly, are not binding and may change based on the actual performance of individual facilities within the bubble.

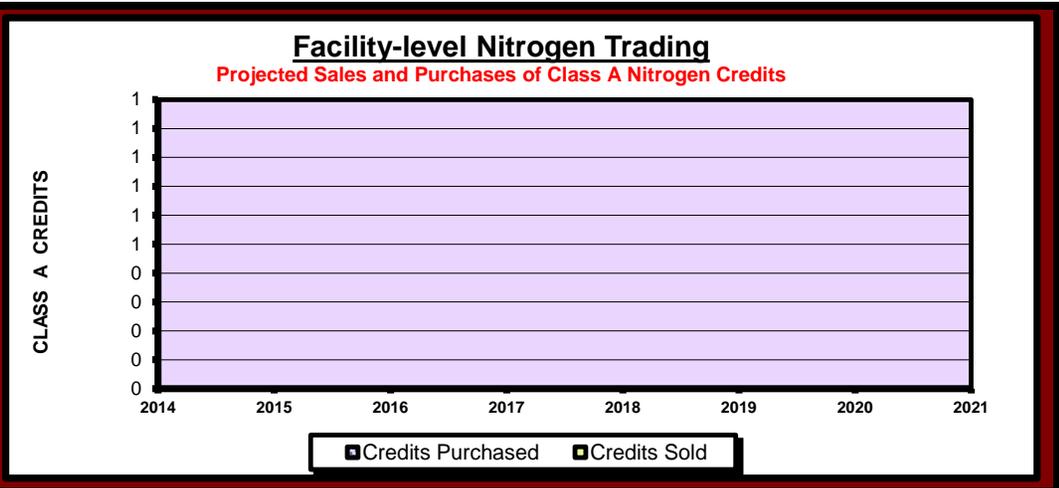
Expected Net Credits for an owner bubble may be either positive or negative. If Expected Net Credits is positive, the owner may pledge a percentage of such Credits to the Exchange. If Expected Net Credits is negative, Net Expected Credits identifies the number of Credits that must be purchased to comply with the aggregate Delivered WLA of the bubble.

NITROGEN Credits	Exchange 5-year Planning Period					Future Projections		
	2014	2015	2016	2017	2018	2019	2020	2021
Credits Transferred within Bubble								
Falling Creek	-	-	-	-	-	-	-	2,284
Proctors Creek	-	-	-	-	-	-	-	(2,284)
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
TOTAL (must sum to 0)	-	-	-	-	-	-	-	-
Credits Available outside Bubble								
Falling Creek	2,627	2,498	2,475	2,558	2,749	3,046	381	-
Proctors Creek	165,336	166,928	168,625	170,430	172,341	174,359	171,694	166,745
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Expected Credits	167,963	169,426	171,100	172,988	175,090	177,405	172,075	166,745
Private Exchanges	-	(165,000)	(165,000)	(165,000)	(165,000)	(165,000)	(165,000)	(165,000)
Expected Net Credits	167,963	4,426	6,100	7,988	10,090	12,405	7,075	1,745
Class A Sales (Purchases)	0	0	0	0	0	0	0	0
<i>Expected Class B Credits</i>	167,963	4,426	6,100	7,988	10,090	12,405	7,075	1,745
<i>WQIF-Held Credits</i>	0	0	0	0	0	0	0	0

PHOSPHORUS Credits	Exchange 5-year Planning Period					Future Projections		
	2014	2015	2016	2017	2018	2019	2020	2021
Credits Transferred within Bubble								
Falling Creek	1,112	1,431	1,751	2,071	2,391	2,711	3,030	3,350
Proctors Creek	(1,112)	(1,431)	(1,751)	(2,071)	(2,391)	(2,711)	(3,030)	(3,350)
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
TOTAL (must sum to 0)	-	-	-	-	-	-	-	-
Credits Available outside Bubble								
Falling Creek	-	-	-	-	-	-	-	-
Proctors Creek	13,187	12,548	11,908	11,268	10,629	9,989	9,350	8,710
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Expected Credits	13,187	12,548	11,908	11,268	10,629	9,989	9,350	8,710
Private Exchanges	-	(2,000)	(2,000)	(2,000)	(2,000)	(2,000)	(2,000)	(2,000)
Expected Net Credits	13,187	10,548	9,908	9,268	8,629	7,989	7,350	6,710
Class A Sales (Purchases)	0	0	0	0	0	0	0	0
<i>Expected Class B Credits</i>	13,187	10,548	9,908	9,268	8,629	7,989	7,350	6,710
<i>WQIF-Held Credits</i>	0	0	0	0	0	0	0	0

NITROGEN FACILITY SUMMARY

Chesterfield-Falling Cr.
 UPPER JAMES Trading Basin



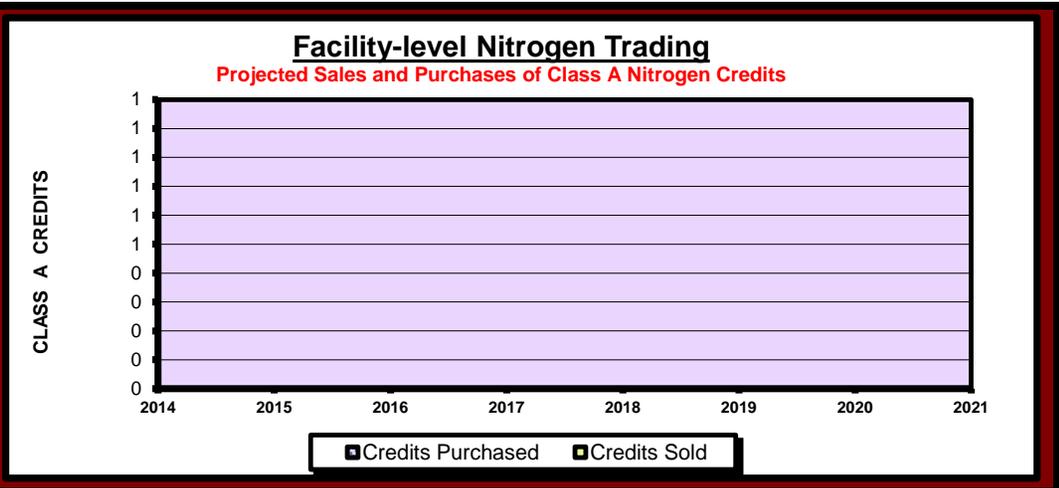
Loading & Credit Summary

Design Flow (mgd)	12.00
Projected Flow (mgd)	9.03
Projected Avg. Annual Concentration (mg/L)	5.50
Discharged Load (end of pipe)	151,174
Delivery Factor	1.00
Expected Load	151,174
Delivered WLA	153,801
Expected Credits (delivered)	2,627
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	2,627
Class A Credit Sales (Purchases)	0
Expected Class B Credits	2,627

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
9.03	9.20	9.38	9.55	9.73	9.90	10.08	10.25
5.50	5.40	5.30	5.20	5.10	5.00	5.00	5.00
151,174	151,303	151,326	151,243	151,052	150,755	153,420	156,085
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
151,174	151,303	151,326	151,243	151,052	150,755	153,420	156,085
153,801	153,801	153,801	153,801	153,801	153,801	153,801	153,801
2,627	2,498	2,475	2,558	2,749	3,046	381	(2,284)
0	0	0	0	0	0	0	2,284
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
2,627	2,498	2,475	2,558	2,749	3,046	381	0
0	0	0	0	0	0	0	0
2,627	2,498	2,475	2,558	2,749	3,046	381	0

NITROGEN FACILITY SUMMARY

Chesterfield-Proctors Cr.
 UPPER JAMES Trading Basin



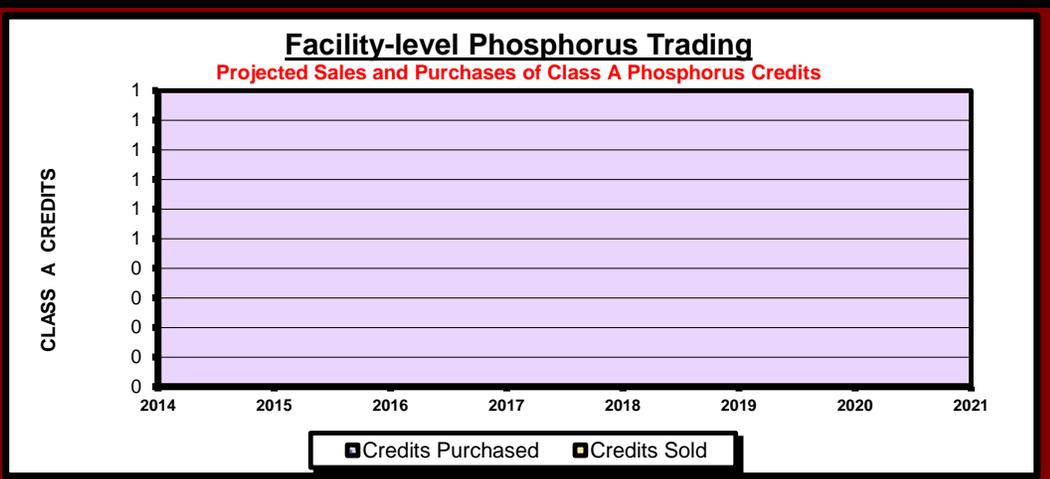
Loading & Credit Summary	
Design Flow (mgd)	27.00
Projected Flow (mgd)	14.68
Projected Avg. Annual Concentration (mg/L)	5.50
Discharged Load (end of pipe)	245,815
Delivery Factor	1.00
Expected Load	245,815
Delivered WLA	411,151
Expected Credits (delivered)	165,336
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange*	0
WQIF-Held Credits	0
Expected Net Credits	165,336
Class A Credit Sales (Purchases)	0
Expected Class B Credits	165,336

2014	2015	2016	2017	2018	2019	2020	2021
<i>Planning Period</i>					<i>Future Estimates (non-binding)</i>		
27.00	27.00	27.00	27.00	27.00	27.00	27.00	27.00
14.68	14.85	15.03	15.20	15.38	15.55	15.73	15.90
5.50	5.40	5.30	5.20	5.10	5.00	5.00	5.00
245,815	244,223	242,526	240,721	238,810	236,792	239,457	242,122
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
245,815	244,223	242,526	240,721	238,810	236,792	239,457	242,122
411,151	411,151	411,151	411,151	411,151	411,151	411,151	411,151
165,336	166,928	168,625	170,430	172,341	174,359	171,694	169,029
0	0	0	0	0	0	0	(2,284)
0	(165,000)	(165,000)	(165,000)	(165,000)	(165,000)	(165,000)	(165,000)
0	0	0	0	0	0	0	0
165,336	1,928	3,625	5,430	7,341	9,359	6,694	1,745
0	0	0	0	0	0	0	0
165,336	1,928	3,625	5,430	7,341	9,359	6,694	1,745

* Represents a Private Exchange of Credits with the South Central Wastewater Authority

PHOSPHORUS FACILITY SUMMARY

Chesterfield-Falling Cr.
 UPPER JAMES Trading Basin



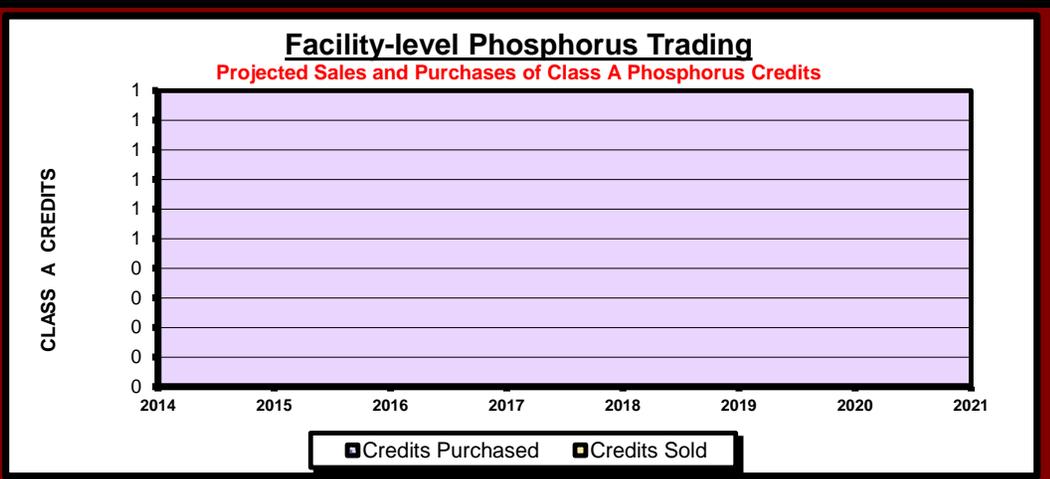
Loading & Credit Summary

Design Flow (mgd)	12.00
Projected Flow (mgd)	9.03
Projected Avg. Annual Concentration (mg/L)	0.60
Discharged Load (end of pipe)	16,492
Delivery Factor	1.00
Expected Load	16,492
Delivered WLA	15,380
Expected Credits (delivered)	(1,112)
Transfers In (Out) within Owner Bubble	1,112
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	0
Class A Credit Sales (Purchases)	0
Expected Class B Credits	0

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
9.03	9.20	9.38	9.55	9.73	9.90	10.08	10.25
0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
16,492	16,811	17,131	17,451	17,771	18,091	18,410	18,730
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
16,492	16,811	17,131	17,451	17,771	18,091	18,410	18,730
15,380	15,380	15,380	15,380	15,380	15,380	15,380	15,380
(1,112)	(1,431)	(1,751)	(2,071)	(2,391)	(2,711)	(3,030)	(3,350)
1,112	1,431	1,751	2,071	2,391	2,711	3,030	3,350
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

PHOSPHORUS FACILITY SUMMARY

Chesterfield-Proctors Cr.
UPPER JAMES Trading Basin



Loading & Credit Summary

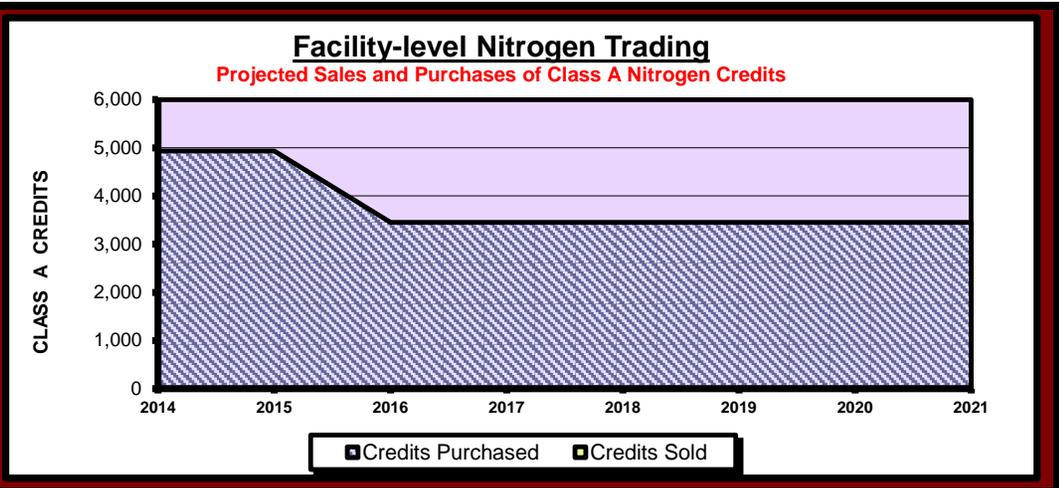
Design Flow (mgd)	Projected Flow (mgd)	Projected Avg. Annual Concentration (mg/L)	Discharged Load (end of pipe)	Delivery Factor	Expected Load	Delivered WLA	Expected Credits (delivered)	Transfers In (Out) within Owner Bubble	Transfers In (Out) from Private Exchange*	WQIF-Held Credits	Expected Net Credits
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2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
27.00	27.00	27.00	27.00	27.00	27.00	27.00	27.00
14.68	14.85	15.03	15.20	15.38	15.55	15.73	15.90
0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
26,816	27,136	27,456	27,776	28,095	28,415	28,735	29,055
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
26,816	27,136	27,456	27,776	28,095	28,415	28,735	29,055
41,115	41,115	41,115	41,115	41,115	41,115	41,115	41,115
14,299	13,979	13,659	13,339	13,020	12,700	12,380	12,060
(1,112)	(1,431)	(1,751)	(2,071)	(2,391)	(2,711)	(3,030)	(3,350)
0	(2,000)	(2,000)	(2,000)	(2,000)	(2,000)	(2,000)	(2,000)
0	0	0	0	0	0	0	0
13,187	10,548	9,908	9,268	8,629	7,989	7,350	6,710
0	0	0	0	0	0	0	0
13,187	10,548	9,908	9,268	8,629	7,989	7,350	6,710

* Represents a Private Exchange of Credits with the South Central Wastewater Authority

NITROGEN FACILITY SUMMARY

Covington
 UPPER JAMES Trading Basin

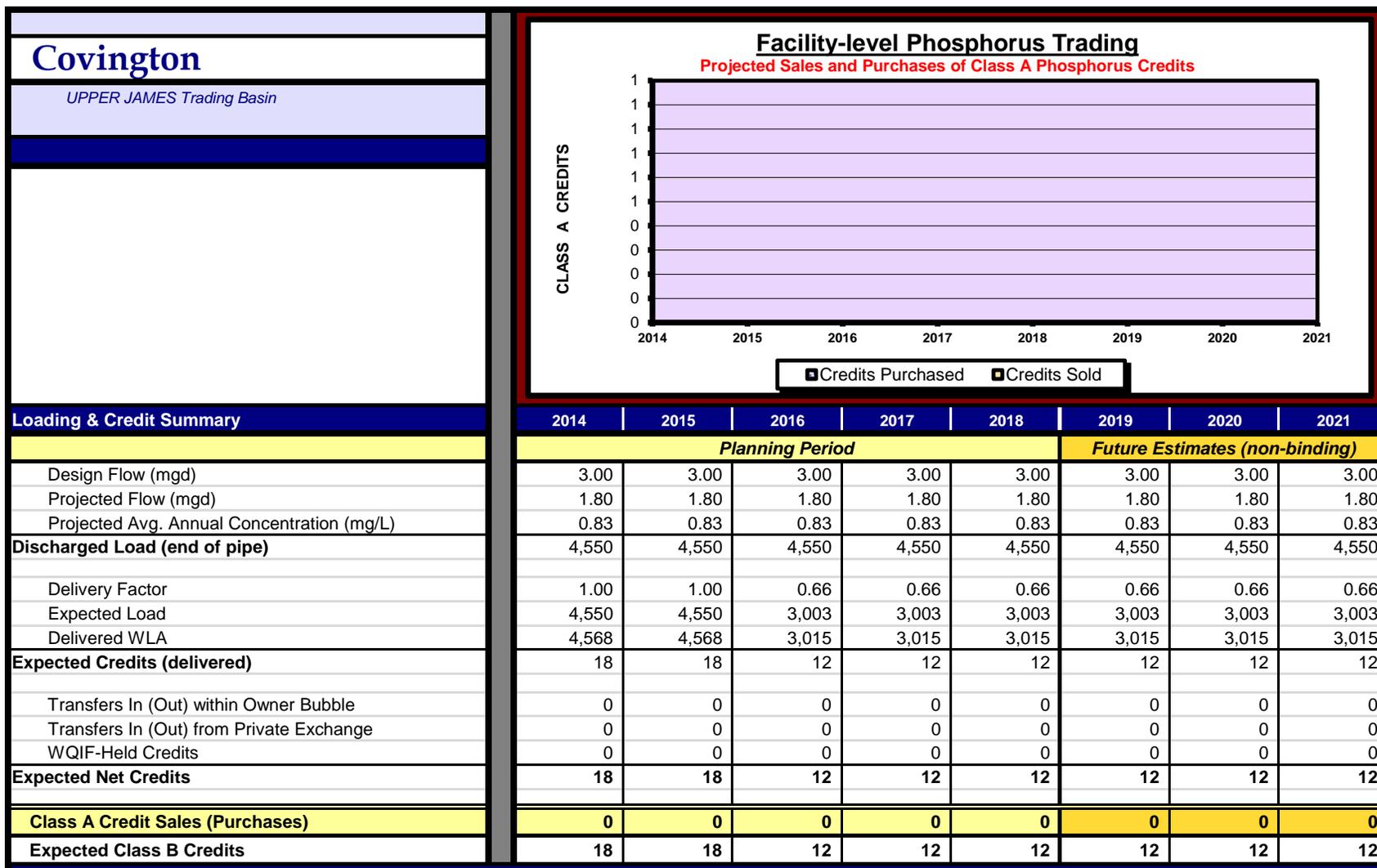


Loading & Credit Summary

Design Flow (mgd)	3.00
Projected Flow (mgd)	1.80
Projected Avg. Annual Concentration (mg/L)	13.00
Discharged Load (end of pipe)	71,266
Delivery Factor	0.30
Expected Load	21,380
Delivered WLA	16,446
Expected Credits (delivered)	(4,934)
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	(4,934)
Class A Credit Sales (Purchases)	(4,934)
Expected Class B Credits	0

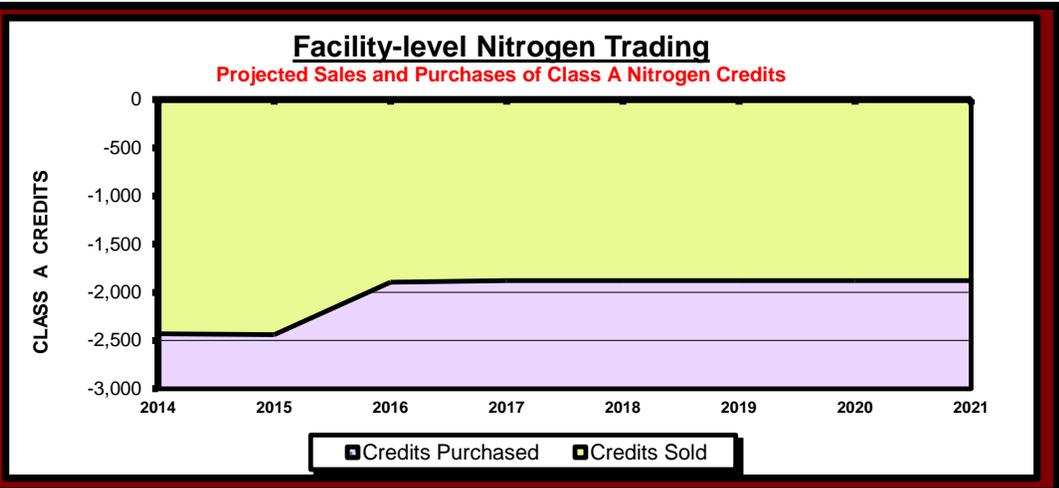
2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00
71,266	71,266	71,266	71,266	71,266	71,266	71,266	71,266
0.30	0.30	0.21	0.21	0.21	0.21	0.21	0.21
21,380	21,380	14,966	14,966	14,966	14,966	14,966	14,966
16,446	16,446	11,512	11,512	11,512	11,512	11,512	11,512
(4,934)	(4,934)	(3,454)	(3,454)	(3,454)	(3,454)	(3,454)	(3,454)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
(4,934)	(4,934)	(3,454)	(3,454)	(3,454)	(3,454)	(3,454)	(3,454)
(4,934)	(4,934)	(3,454)	(3,454)	(3,454)	(3,454)	(3,454)	(3,454)
0	0	0	0	0	0	0	0

PHOSPHORUS FACILITY SUMMARY



NITROGEN FACILITY SUMMARY

Crewe
UPPER JAMES Trading Basin

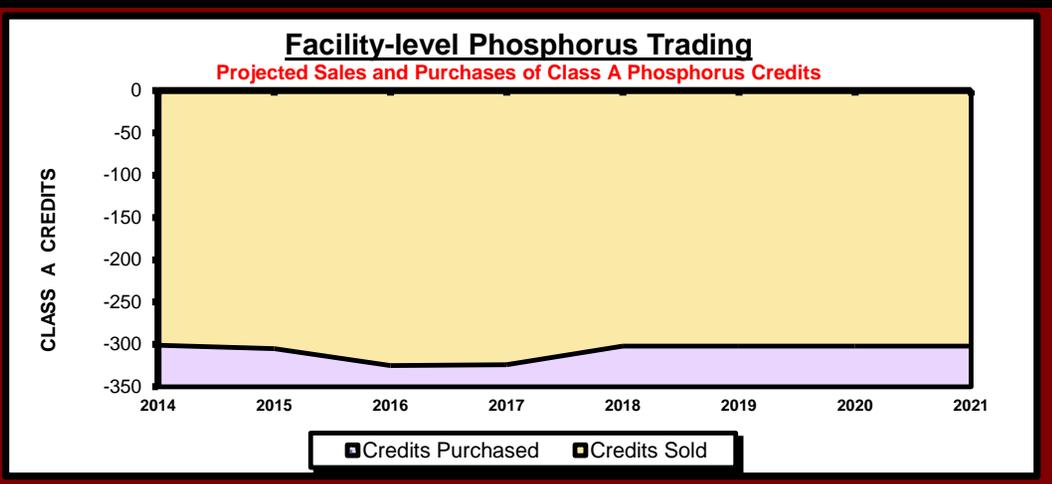


Loading & Credit Summary
Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
0.20	0.21	0.23	0.23	0.23	0.23	0.23	0.23
4.50	4.25	3.80	3.80	3.80	3.80	3.80	3.80
2,741	2,718	2,604	2,662	2,662	2,662	2,662	2,662
0.38	0.38	0.29	0.29	0.29	0.29	0.29	0.29
1,042	1,033	755	772	772	772	772	772
3,472	3,472	2,650	2,650	2,650	2,650	2,650	2,650
2,430	2,439	1,895	1,878	1,878	1,878	1,878	1,878
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
2,430	2,439	1,895	1,878	1,878	1,878	1,878	1,878
0	0	0	0	0	0	0	0

PHOSPHORUS FACILITY SUMMARY

Crewe
UPPER JAMES Trading Basin



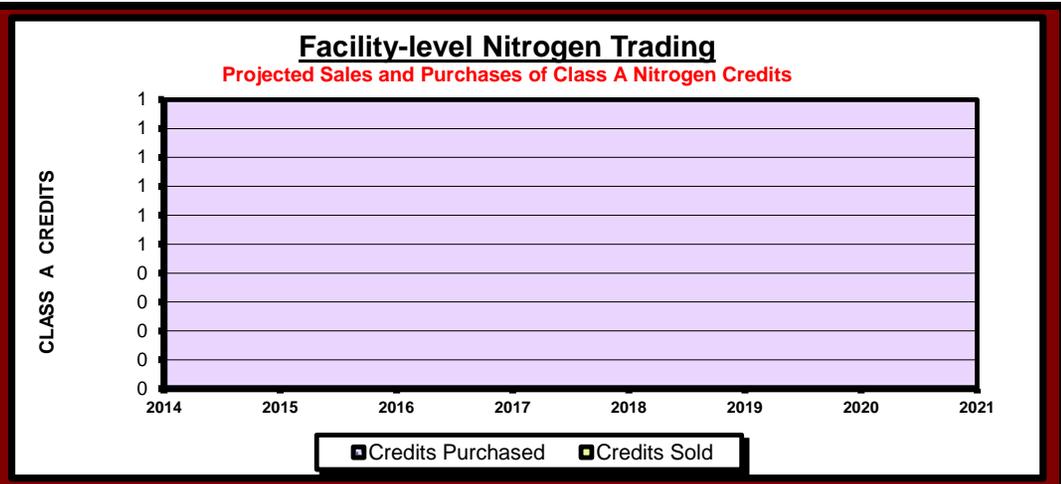
Loading & Credit Summary
Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
0.20	0.21	0.23	0.23	0.23	0.23	0.23	0.23
0.10	0.08	0.08	0.08	0.15	0.15	0.15	0.15
61	51	55	56	105	105	105	105
0.43	0.43	0.46	0.46	0.46	0.46	0.46	0.46
26	22	25	26	48	48	48	48
327	327	350	350	350	350	350	350
301	305	325	324	302	302	302	302
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
301	305	325	324	302	302	302	302
0	0	0	0	0	0	0	0

NITROGEN FACILITY SUMMARY

Dominion-Chesterfield

UPPER JAMES Trading Basin

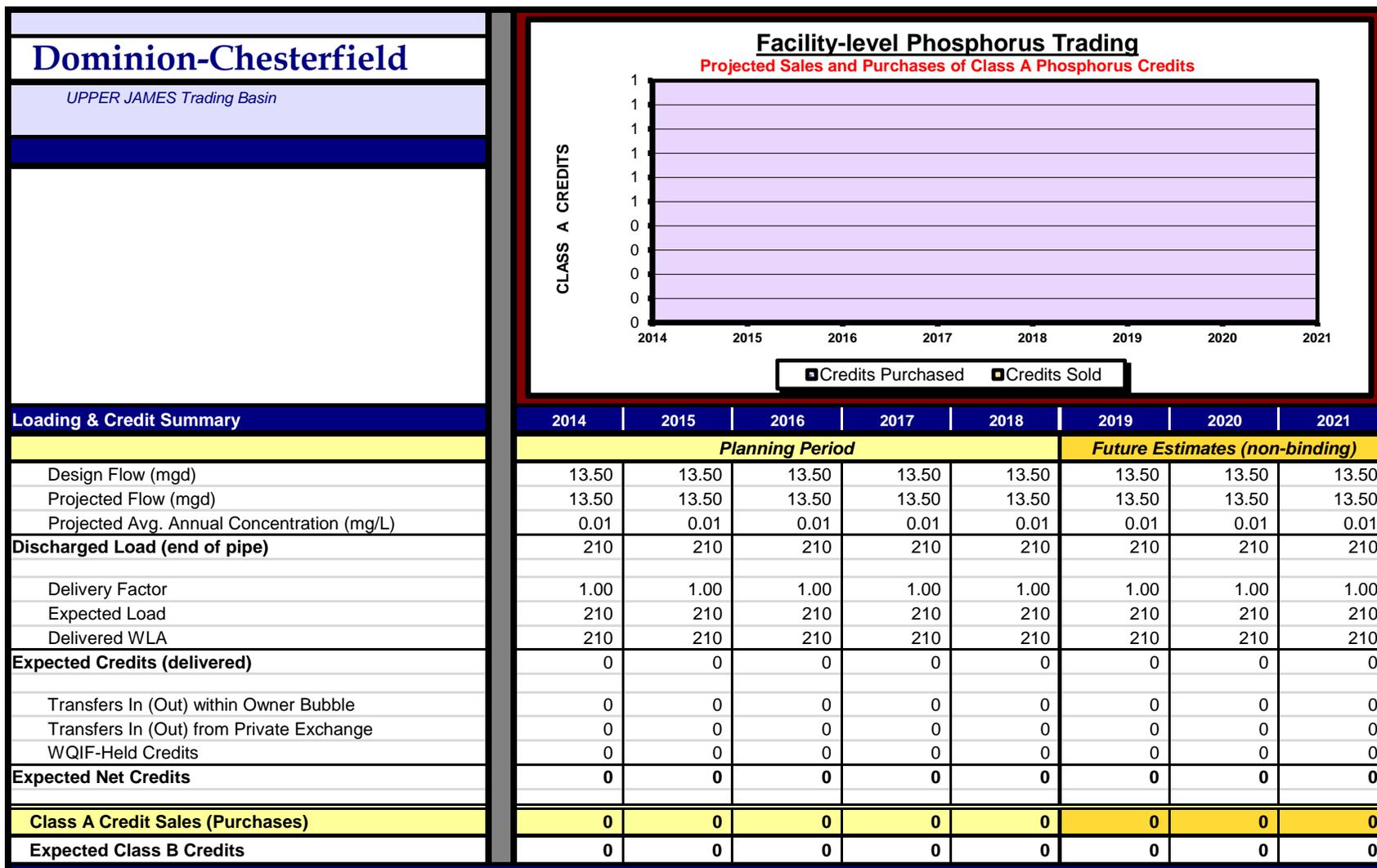


Loading & Credit Summary

Design Flow (mgd)	13.50
Projected Flow (mgd)	13.50
Projected Avg. Annual Concentration (mg/L)	8.39
Discharged Load (end of pipe)	344,955
Delivery Factor	1.00
Expected Load	344,955
Delivered WLA	352,036
Expected Credits (delivered)	7,081
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	7,081
Class A Credit Sales (Purchases)	0
Expected Class B Credits	7,081

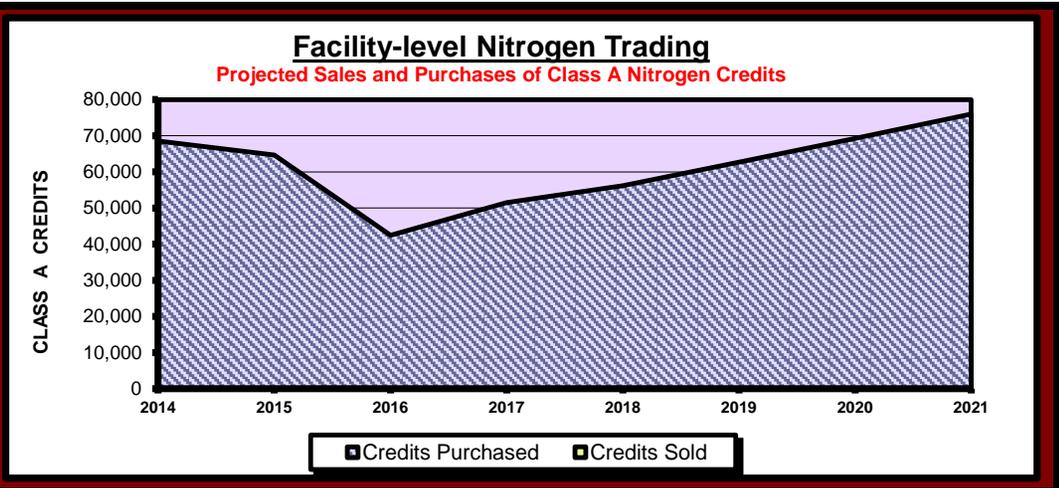
2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
13.50	13.50	13.50	13.50	13.50	13.50	13.50	13.50
13.50	13.50	13.50	13.50	13.50	13.50	13.50	13.50
8.39	8.39	8.39	8.39	8.39	8.39	8.39	8.39
344,955	344,955	344,955	344,955	344,955	344,955	344,955	344,955
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
344,955	344,955	344,955	344,955	344,955	344,955	344,955	344,955
352,036	352,036	352,036	352,036	352,036	352,036	352,036	352,036
7,081	7,081	7,081	7,081	7,081	7,081	7,081	7,081
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
7,081	7,081	7,081	7,081	7,081	7,081	7,081	7,081
0	0	0	0	0	0	0	0
7,081	7,081	7,081	7,081	7,081	7,081	7,081	7,081

PHOSPHORUS FACILITY SUMMARY



NITROGEN FACILITY SUMMARY

DuPont-Spruance
 UPPER JAMES Trading Basin

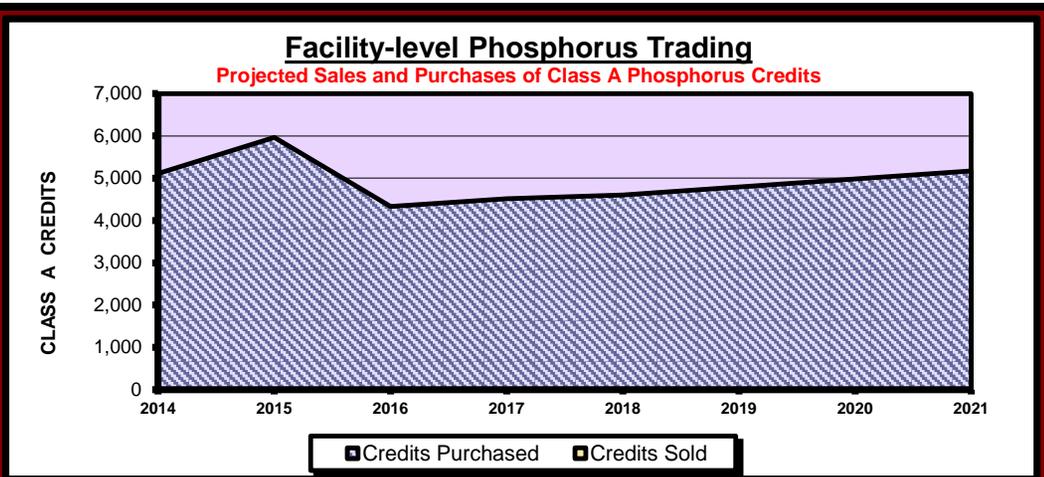


Loading & Credit Summary	
Design Flow (mgd)	
Projected Flow (mgd)	
Projected Avg. Annual Concentration (mg/L)	
Discharged Load (end of pipe)	
Delivery Factor	
Expected Load	
Delivered WLA	
Expected Credits (delivered)	
Transfers In (Out) within Owner Bubble	
Transfers In (Out) from Private Exchange	
WQIF-Held Credits	
Expected Net Credits	
Class A Credit Sales (Purchases)	
Expected Class B Credits	

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
23.33	23.33	23.33	23.33	23.33	23.33	23.33	23.33
29.79	30.24	30.69	31.15	31.62	32.10	32.58	33.07
2.39	2.35	2.61	2.66	2.67	2.70	2.73	2.75
216,566	216,430	243,578	252,637	257,315	263,763	270,386	277,072
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
216,566	216,430	243,578	252,637	257,315	263,763	270,386	277,072
201,080	201,080	201,080	201,080	201,080	201,080	201,080	201,080
(15,486)	(15,350)	(42,498)	(51,557)	(56,235)	(62,683)	(69,306)	(75,992)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
(15,486)	(15,350)	(42,498)	(51,557)	(56,235)	(62,683)	(69,306)	(75,992)
(68,557)	(64,680)	(42,498)	(51,557)	(56,235)	(62,683)	(69,306)	(75,992)
53,071	49,330	0	0	0	0	0	0

PHOSPHORUS FACILITY SUMMARY

DuPont-Spruance
 UPPER JAMES Trading Basin



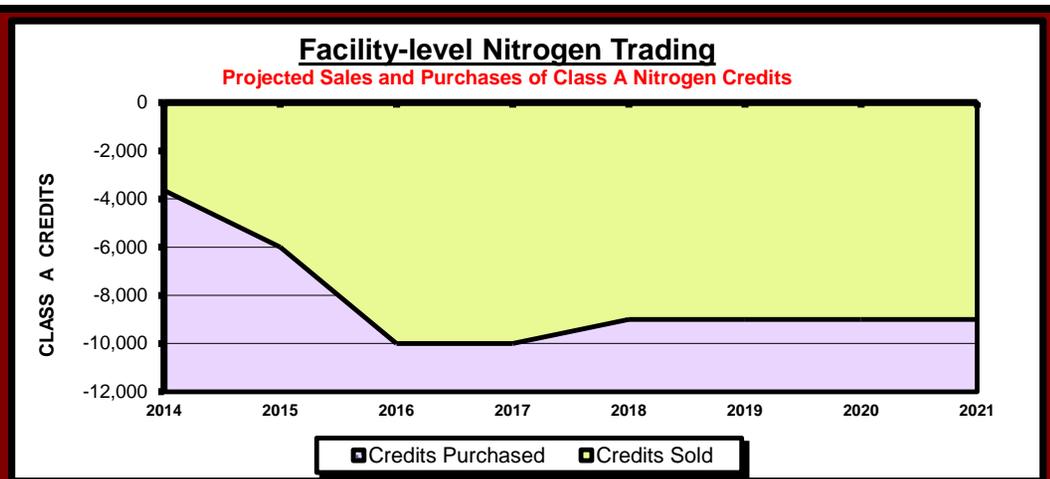
Loading & Credit Summary

Design Flow (mgd)	23.33
Projected Flow (mgd)	29.79
Projected Avg. Annual Concentration (mg/L)	0.13
Discharged Load (end of pipe)	11,795
Delivery Factor	1.00
Expected Load	11,795
Delivered WLA	7,816
Expected Credits (delivered)	(3,979)
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	(3,979)
Class A Credit Sales (Purchases)	(5,112)
Expected Class B Credits	1,133

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
23.33	23.33	23.33	23.33	23.33	23.33	23.33	23.33
29.79	30.24	30.69	31.15	31.62	32.10	32.58	33.07
0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
11,795	11,973	12,151	12,333	12,423	12,611	12,800	12,992
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
11,795	11,973	12,151	12,333	12,423	12,611	12,800	12,992
7,816	7,816	7,816	7,816	7,816	7,816	7,816	7,816
(3,979)	(4,157)	(4,335)	(4,517)	(4,607)	(4,795)	(4,984)	(5,176)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
(3,979)	(4,157)	(4,335)	(4,517)	(4,607)	(4,795)	(4,984)	(5,176)
(5,112)	(5,964)	(4,335)	(4,517)	(4,607)	(4,795)	(4,984)	(5,176)
1,133	1,807	0	0	0	0	0	0

NITROGEN FACILITY SUMMARY

Georgia-Pacific
UPPER JAMES Trading Basin



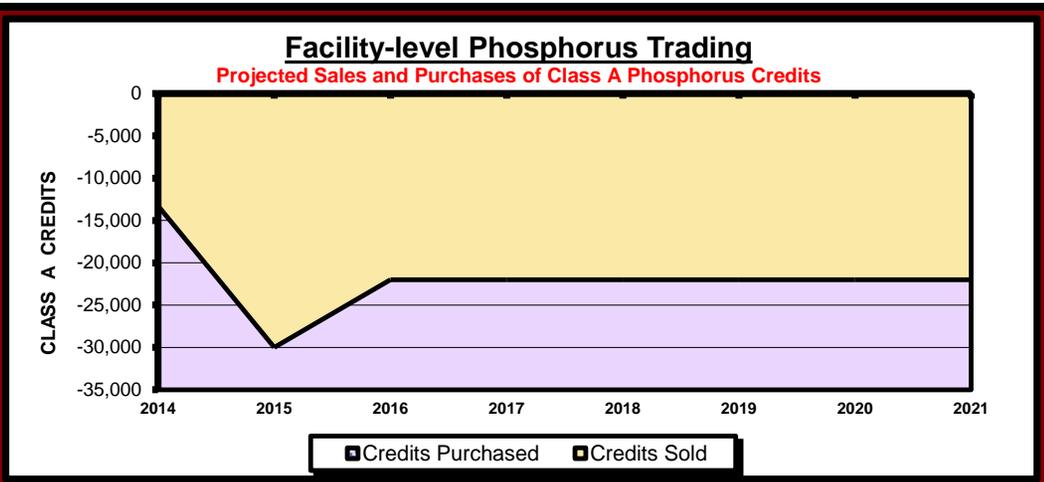
Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
10.87	10.87	10.87	10.87	10.87	10.87	10.87	10.87
8.06	8.14	8.22	8.30	8.39	8.47	8.55	8.64
4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
98,189	99,163	100,138	101,113	102,209	103,184	104,158	105,255
0.30	0.30	0.60	0.60	0.60	0.60	0.60	0.60
29,457	29,749	60,083	60,668	61,325	61,910	62,495	63,153
36,747	36,747	73,493	73,493	73,493	73,493	73,493	73,493
7,290	6,998	13,410	12,825	12,168	11,583	10,998	10,340
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
7,290	6,998	13,410	12,825	12,168	11,583	10,998	10,340
3,645	6,000	10,000	10,000	9,000	9,000	9,000	9,000
3,645	998	3,410	2,825	3,168	2,583	1,998	1,340

PHOSPHORUS FACILITY SUMMARY

Georgia-Pacific
UPPER JAMES Trading Basin



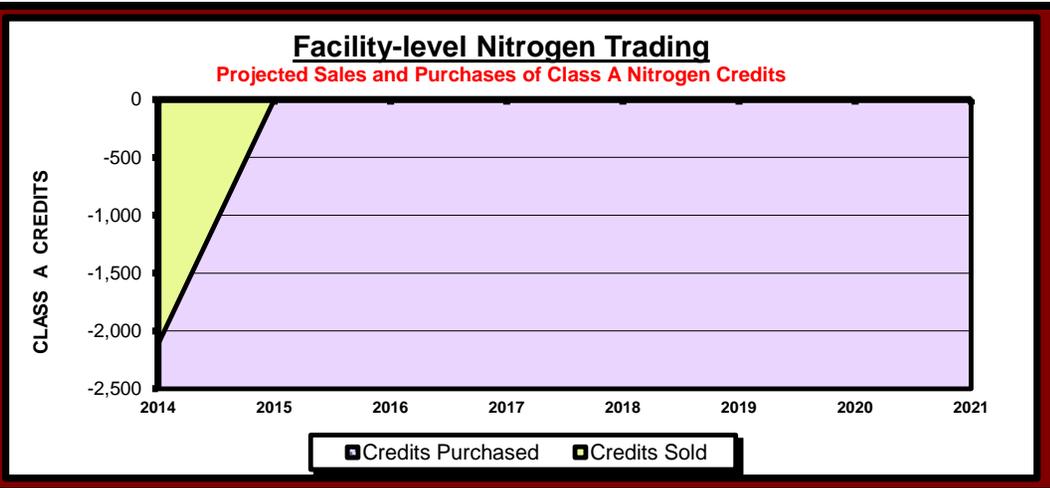
Loading & Credit Summary

Design Flow (mgd)	10.87
Projected Flow (mgd)	8.06
Projected Avg. Annual Concentration (mg/L)	0.50
Discharged Load (end of pipe)	12,274
Delivery Factor	1.00
Expected Load	12,274
Delivered WLA	49,658
Expected Credits (delivered)	37,384
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	37,384
Class A Credit Sales (Purchases)	13,282
Expected Class B Credits	24,102

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
10.87	10.87	10.87	10.87	10.87	10.87	10.87	10.87
8.06	8.14	8.22	8.30	8.39	8.47	8.55	8.64
0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
12,274	12,395	12,517	12,639	12,776	12,898	13,020	13,157
1.00	1.00	0.66	0.66	0.66	0.66	0.66	0.66
12,274	12,395	8,261	8,342	8,432	8,513	8,593	8,684
49,658	49,658	32,774	32,774	32,774	32,774	32,774	32,774
37,384	37,263	24,513	24,432	24,342	24,261	24,181	24,090
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
37,384	37,263	24,513	24,432	24,342	24,261	24,181	24,090
13,282	30,000	22,000	22,000	22,000	22,000	22,000	22,000
24,102	7,263	2,513	2,432	2,342	2,261	2,181	2,090

NITROGEN FACILITY SUMMARY

Greif Packaging
 UPPER JAMES Trading Basin



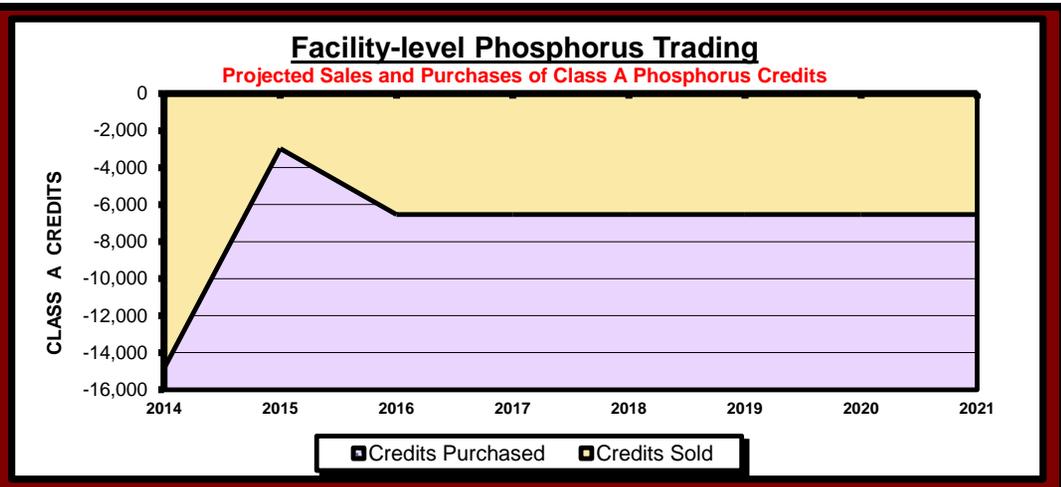
Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
3.35	3.70	3.70	3.70	3.70	3.70	3.70	3.70
66,317	73,246	73,246	73,246	73,246	73,246	73,246	73,246
0.61	0.61	0.65	0.65	0.65	0.65	0.65	0.65
40,453	44,680	47,610	47,610	47,610	47,610	47,610	47,610
44,680	44,680	47,610	47,610	47,610	47,610	47,610	47,610
4,227	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
4,227	0	0	0	0	0	0	0
2,114	0	0	0	0	0	0	0
2,113	0	0	0	0	0	0	0

PHOSPHORUS FACILITY SUMMARY

Greif Packaging
 UPPER JAMES Trading Basin



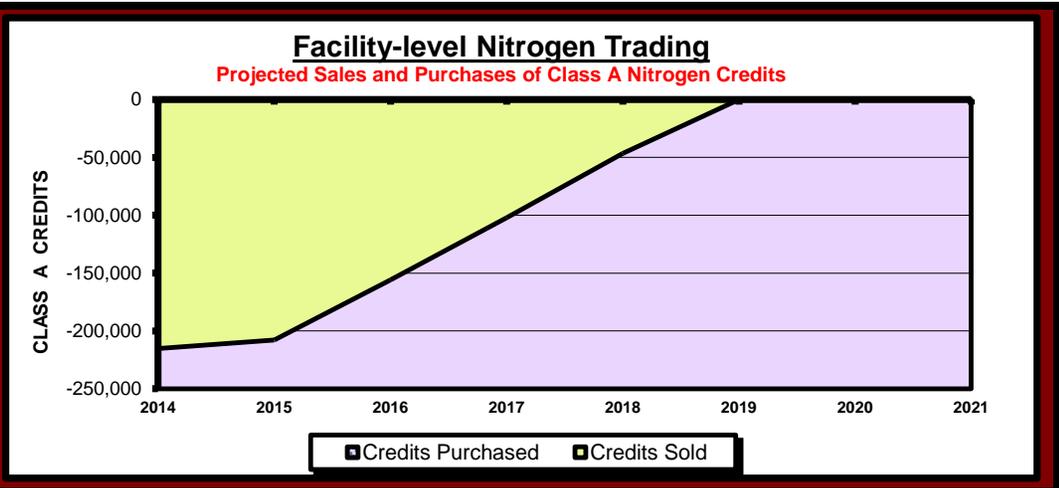
Loading & Credit Summary

Design Flow (mgd)	6.50
Projected Flow (mgd)	6.50
Projected Avg. Annual Concentration (mg/L)	0.50
Discharged Load (end of pipe)	9,898
Delivery Factor	1.00
Expected Load	9,898
Delivered WLA	29,694
Expected Credits (delivered)	19,796
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	19,796
Class A Credit Sales (Purchases)	14,847
Expected Class B Credits	4,949

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
0.50	1.20	1.00	1.00	1.00	1.00	1.00	1.00
9,898	23,755	19,796	19,796	19,796	19,796	19,796	19,796
1.00	1.00	0.66	0.66	0.66	0.66	0.66	0.66
9,898	23,755	13,065	13,065	13,065	13,065	13,065	13,065
29,694	29,694	19,598	19,598	19,598	19,598	19,598	19,598
19,796	5,939	6,533	6,533	6,533	6,533	6,533	6,533
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
19,796	5,939	6,533	6,533	6,533	6,533	6,533	6,533
14,847	2,970	6,533	6,533	6,533	6,533	6,533	6,533
4,949	2,969	0	0	0	0	0	0

NITROGEN FACILITY SUMMARY

Henrico Co
<i>UPPER JAMES Trading Basin</i>



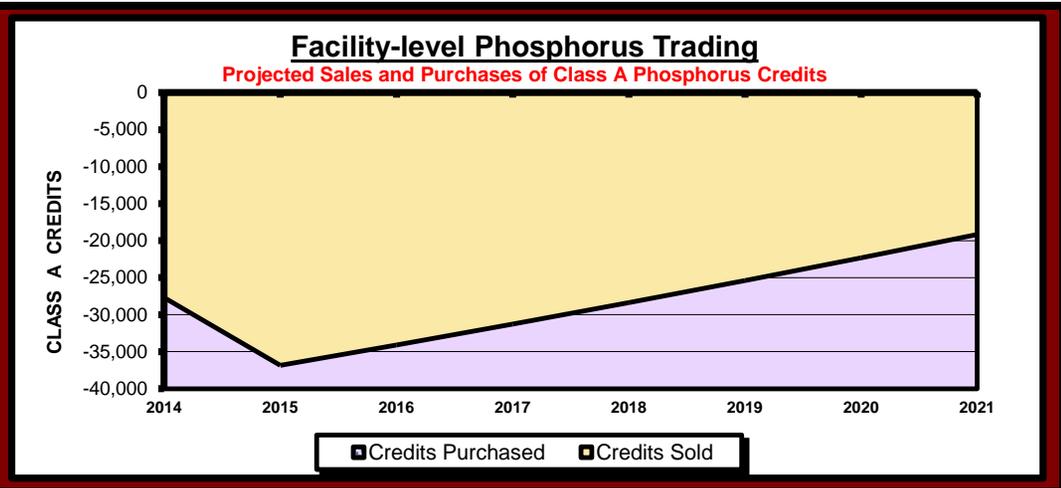
Loading & Credit Summary	
Design Flow (mgd)	
Projected Flow (mgd)	
Projected Avg. Annual Concentration (mg/L)	
Discharged Load (end of pipe)	
Delivery Factor	
Expected Load	
Delivered WLA	
Expected Credits (delivered)	
Transfers In (Out) within Owner Bubble	
Transfers In (Out) from Private Exchange*	
WQIF-Held Credits	
Expected Net Credits	
Class A Credit Sales (Purchases)	
Expected Class B Credits	

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00
53.72	55.33	56.99	58.70	60.46	62.27	64.14	66.07
4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90
801,677	825,703	850,476	875,994	902,259	929,270	957,177	985,979
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
801,677	825,703	850,476	875,994	902,259	929,270	957,177	985,979
1,142,085	1,142,085	1,142,085	1,142,085	1,142,085	1,142,085	1,142,085	1,142,085
340,408	316,382	291,609	266,091	239,826	212,815	184,908	156,106
0	0	0	0	0	0	0	0
0	(85,404)	(118,352)	(152,572)	(188,115)	(191,534)	(166,417)	(140,495)
0	0	0	0	0	0	0	0
340,408	230,978	173,257	113,519	51,711	21,281	18,491	15,611
215,268	207,880	155,931	102,167	46,547	0	0	0
125,140	23,098	17,326	11,352	5,164	21,281	18,491	15,611

* Represents a Private Exchange of Credits with the South Central Wastewater Authority

PHOSPHORUS FACILITY SUMMARY

Henrico Co
<i>UPPER JAMES Trading Basin</i>

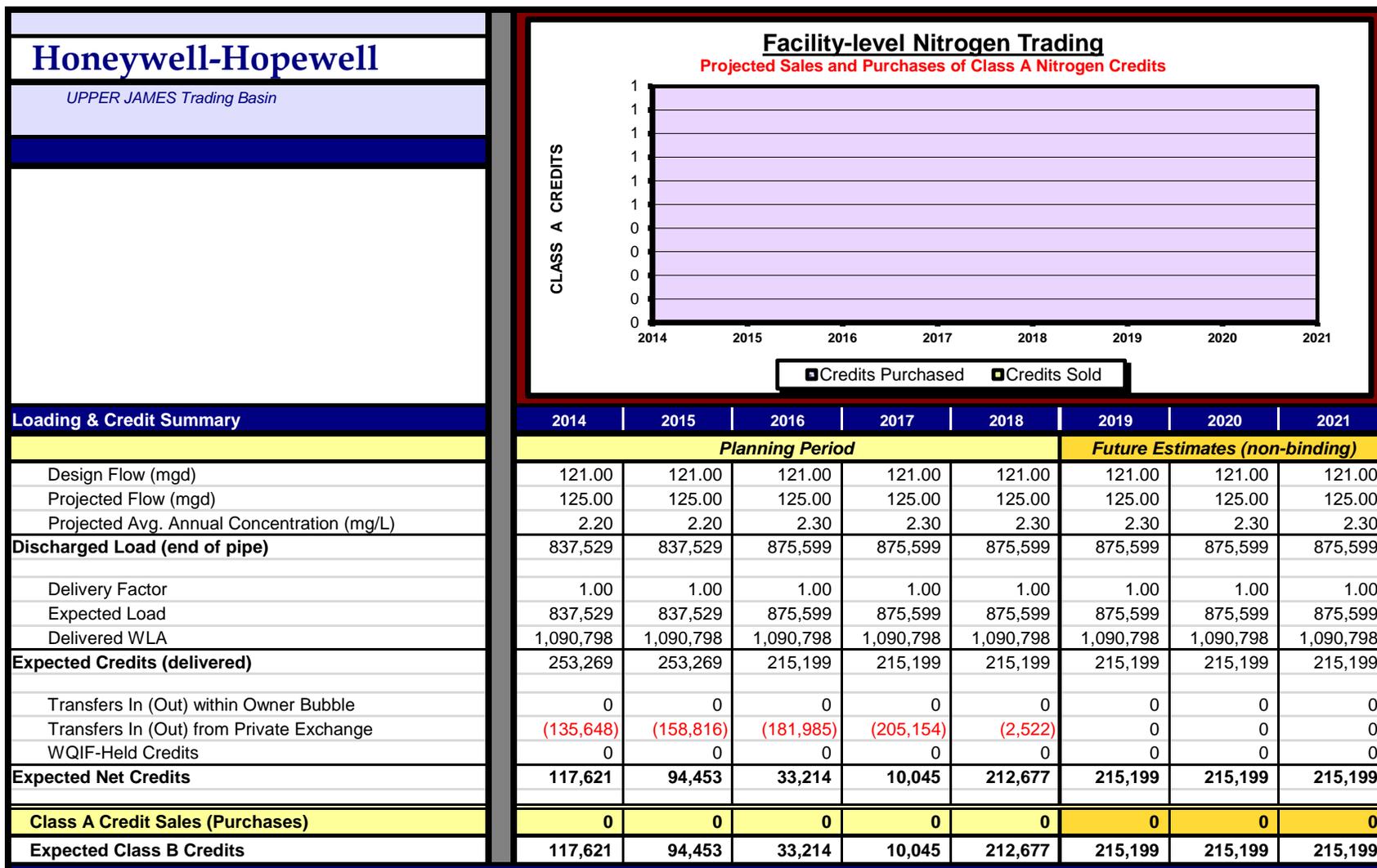


Loading & Credit Summary	
Design Flow (mgd)	75.00
Projected Flow (mgd)	53.72
Projected Avg. Annual Concentration (mg/L)	0.35
Discharged Load (end of pipe)	57,263
Delivery Factor	1.00
Expected Load	57,263
Delivered WLA	114,209
Expected Credits (delivered)	56,946
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange*	0
WQIF-Held Credits	0
Expected Net Credits	56,946
Class A Credit Sales (Purchases)	27,695
Expected Class B Credits	29,251

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00
53.72	55.33	56.99	58.70	60.46	62.27	64.14	66.07
0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
57,263	58,979	60,748	62,571	64,447	66,376	68,370	70,427
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
57,263	58,979	60,748	62,571	64,447	66,376	68,370	70,427
114,209	114,209	114,209	114,209	114,209	114,209	114,209	114,209
56,946	55,230	53,461	51,638	49,762	47,833	45,839	43,782
0	0	0	0	0	0	0	0
0	(14,293)	(15,576)	(16,891)	(18,240)	(19,620)	(21,037)	(22,487)
0	0	0	0	0	0	0	0
56,946	40,937	37,885	34,747	31,522	28,213	24,802	21,295
27,695	36,843	34,097	31,272	28,371	25,392	22,322	19,165
29,251	4,094	3,788	3,475	3,151	2,821	2,480	2,130

* Represents a Private Exchange of Credits with the South Central Wastewater Authority

NITROGEN FACILITY SUMMARY



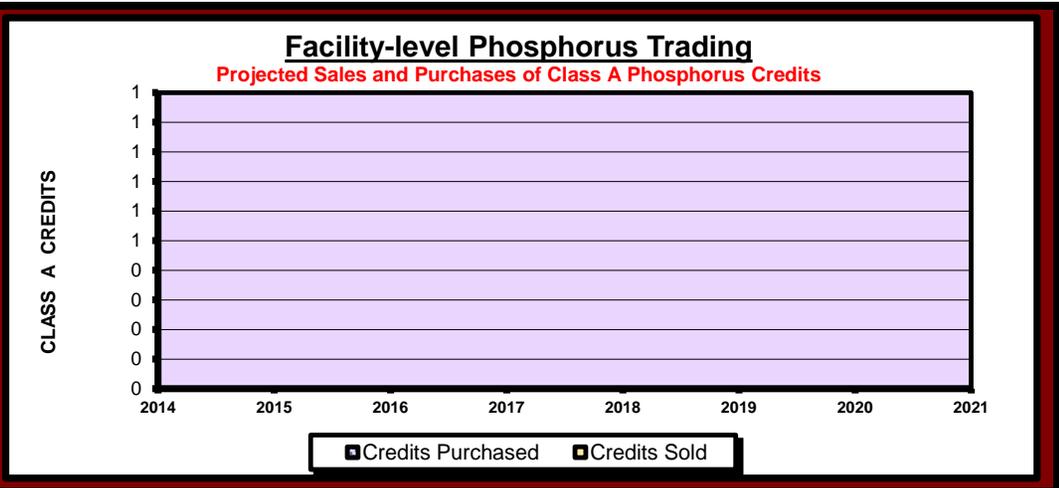
Loading & Credit Summary

Design Flow (mgd)	
Projected Flow (mgd)	
Projected Avg. Annual Concentration (mg/L)	
Discharged Load (end of pipe)	
Delivery Factor	
Expected Load	
Delivered WLA	
Expected Credits (delivered)	
Transfers In (Out) within Owner Bubble	
Transfers In (Out) from Private Exchange	
WQIF-Held Credits	
Expected Net Credits	
Class A Credit Sales (Purchases)	
Expected Class B Credits	

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
121.00	121.00	121.00	121.00	121.00	121.00	121.00	121.00
125.00	125.00	125.00	125.00	125.00	125.00	125.00	125.00
2.20	2.20	2.30	2.30	2.30	2.30	2.30	2.30
837,529	837,529	875,599	875,599	875,599	875,599	875,599	875,599
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
837,529	837,529	875,599	875,599	875,599	875,599	875,599	875,599
1,090,798	1,090,798	1,090,798	1,090,798	1,090,798	1,090,798	1,090,798	1,090,798
253,269	253,269	215,199	215,199	215,199	215,199	215,199	215,199
0	0	0	0	0	0	0	0
(135,648)	(158,816)	(181,985)	(205,154)	(2,522)	0	0	0
0	0	0	0	0	0	0	0
117,621	94,453	33,214	10,045	212,677	215,199	215,199	215,199
0	0	0	0	0	0	0	0
117,621	94,453	33,214	10,045	212,677	215,199	215,199	215,199

PHOSPHORUS FACILITY SUMMARY

Honeywell-Hopewell
 UPPER JAMES Trading Basin

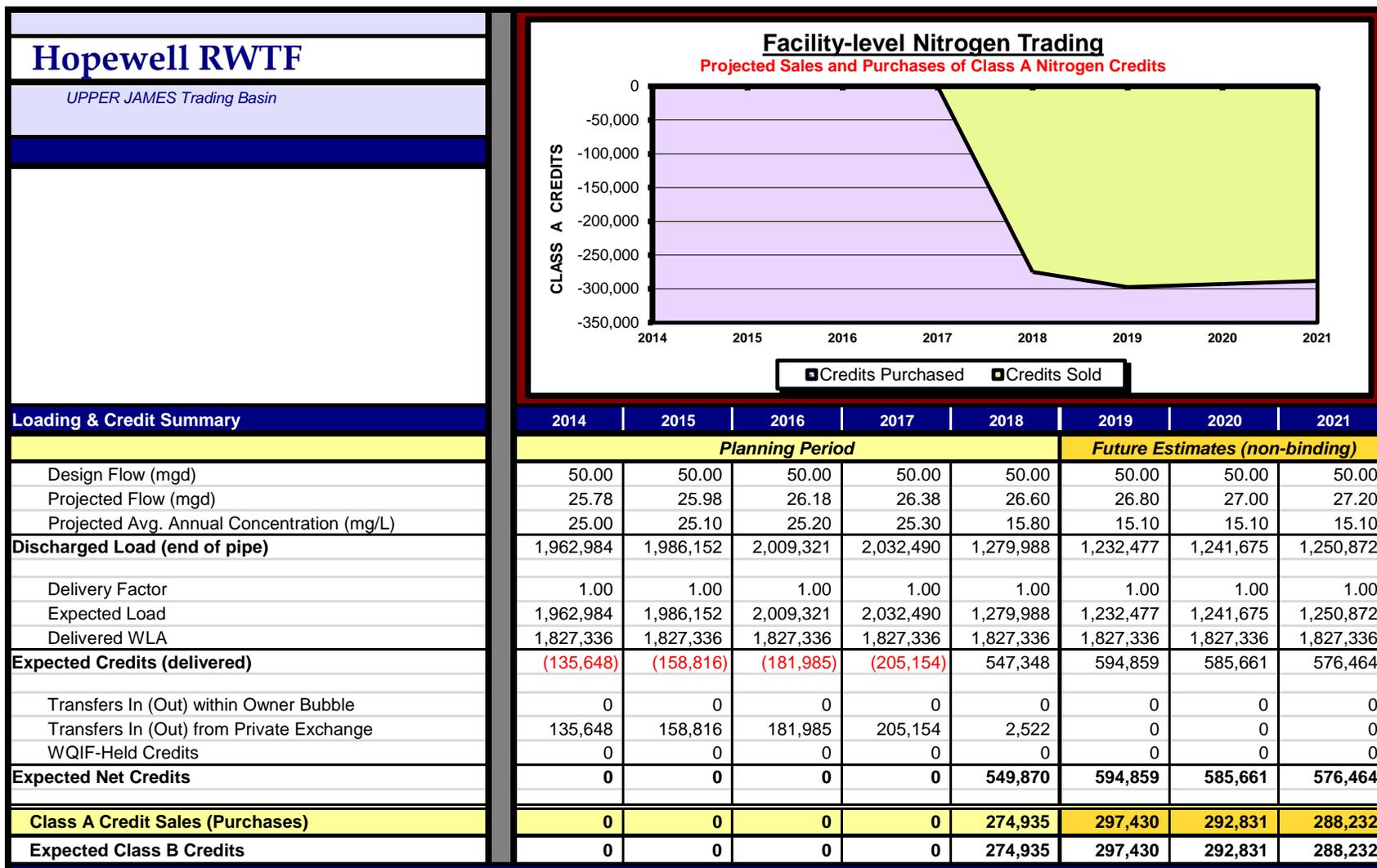


Loading & Credit Summary

Design Flow (mgd)	121.00	121.00	121.00	121.00	121.00	121.00	121.00	121.00
Projected Flow (mgd)	125.00	125.00	125.00	125.00	125.00	125.00	125.00	125.00
Projected Avg. Annual Concentration (mg/L)	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Discharged Load (end of pipe)	38,070							
Delivery Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Expected Load	38,070	38,070	38,070	38,070	38,070	38,070	38,070	38,070
Delivered WLA	51,592	51,592	51,592	51,592	51,592	51,592	51,592	51,592
Expected Credits (delivered)	13,522							
Transfers In (Out) within Owner Bubble	0	0	0	0	0	0	0	0
Transfers In (Out) from Private Exchange	0	0	0	0	0	0	0	0
WQIF-Held Credits	0	0	0	0	0	0	0	0
Expected Net Credits	13,522							
Class A Credit Sales (Purchases)	0							
Expected Class B Credits	13,522							

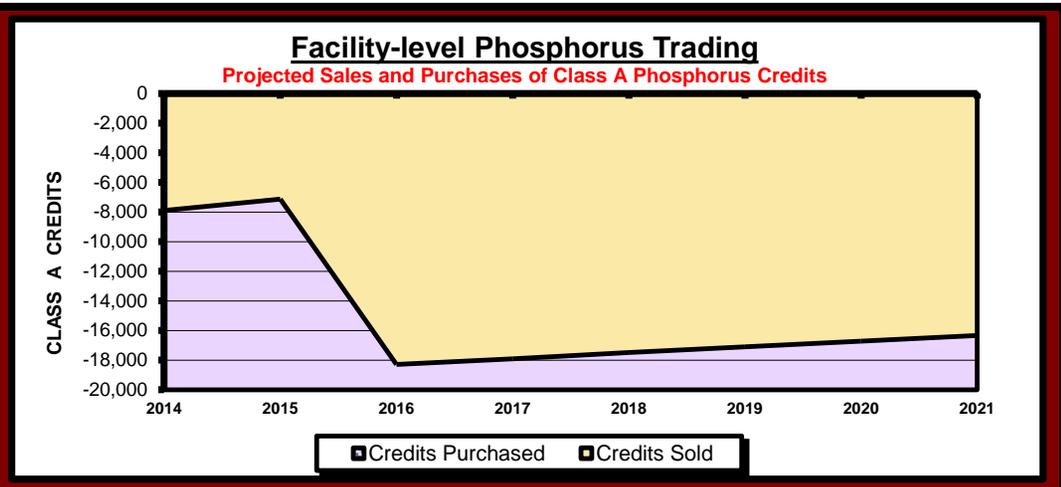
2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
121.00	121.00	121.00	121.00	121.00	121.00	121.00	121.00
125.00	125.00	125.00	125.00	125.00	125.00	125.00	125.00
0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
38,070	38,070	38,070	38,070	38,070	38,070	38,070	38,070
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
38,070	38,070	38,070	38,070	38,070	38,070	38,070	38,070
51,592	51,592	51,592	51,592	51,592	51,592	51,592	51,592
13,522	13,522	13,522	13,522	13,522	13,522	13,522	13,522
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
13,522	13,522	13,522	13,522	13,522	13,522	13,522	13,522
0	0	0	0	0	0	0	0
13,522	13,522	13,522	13,522	13,522	13,522	13,522	13,522

NITROGEN FACILITY SUMMARY



PHOSPHORUS FACILITY SUMMARY

Hopewell RWTF
 UPPER JAMES Trading Basin



Loading & Credit Summary

Design Flow (mgd)	50.00
Projected Flow (mgd)	25.78
Projected Avg. Annual Concentration (mg/L)	0.70
Discharged Load (end of pipe)	54,964
Delivery Factor	1.00
Expected Load	54,964
Delivered WLA	76,139
Expected Credits (delivered)	21,175
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	21,175
Class A Credit Sales (Purchases)	7,894
Expected Class B Credits	13,281

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
25.78	25.98	26.18	26.38	26.60	26.80	27.00	27.20
0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
54,964	55,391	55,814	56,235	56,708	57,135	57,561	57,987
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
54,964	55,391	55,814	56,235	56,708	57,135	57,561	57,987
76,139	76,139	76,139	76,139	76,139	76,139	76,139	76,139
21,175	20,748	20,325	19,904	19,431	19,004	18,578	18,152
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
21,175	20,748	20,325	19,904	19,431	19,004	18,578	18,152
7,894	7,126	18,293	17,914	17,488	17,104	16,720	16,337
13,281	13,622	2,033	1,990	1,943	1,900	1,858	1,815

Owner Bubble: Hampton Roads Sanitation District (James)

The facilities listed below have received an aggregated mass load limit pursuant to 9 VAC 25-820-70, Part 1.B.2., which is also referred to as an “owner bubble”. Accordingly, compliance is determined solely on an aggregate basis rather than by comparison of individual facility loads with respective individual WLAs.

The “Credit Transferred within Bubble” section of each table forecasts the use of Credits within the owner bubble during each Compliance Year, and must necessarily sum to zero. The specific Credit transfers shown in this table are provided for internal planning purposes only and, accordingly, are not binding and may change based on the actual performance of individual facilities within the bubble.

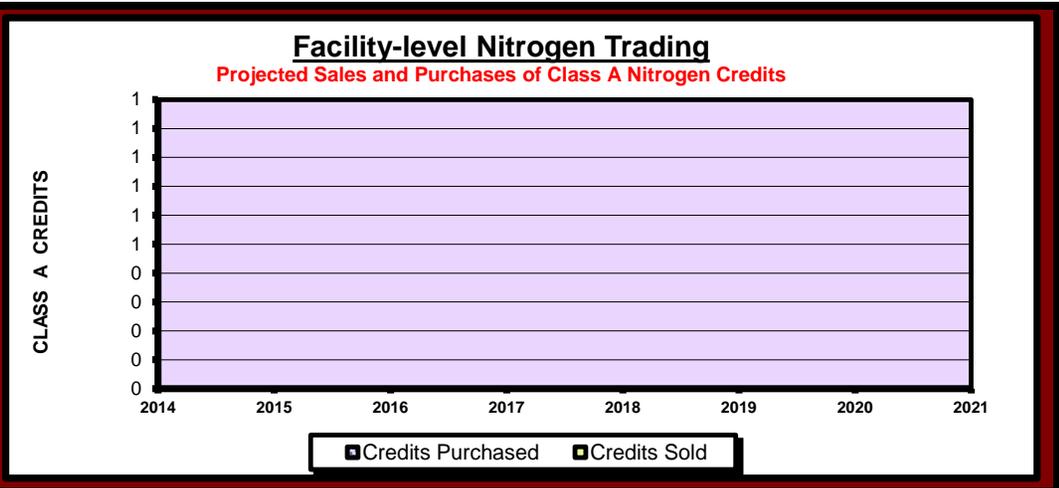
Expected Net Credits for an owner bubble may be either positive or negative. If Expected Net Credits is positive, the owner may pledge a percentage of such Credits to the Exchange. If Expected Net Credits is negative, Net Expected Credits identifies the number of Credits that must be purchased to comply with the aggregate Delivered WLA of the bubble.

NITROGEN Credits	Exchange 5-year Planning Period					Future Projections		
	2014	2015	2016	2017	2018	2019	2020	2021
Credits Transferred within Bubble								
Army Base	250,961	-	-	(290,568)	(292,467)	(292,277)	(292,086)	(291,895)
Boat Harbor	360,278	364,646	369,031	513,845	513,111	513,573	514,036	514,499
Ches/Eliz	115,864	124,022	132,234	726,121	845,017	853,542	862,119	870,746
James River	(748,228)	(584,072)	(598,620)	(77,672)	(121,559)	(120,966)	(120,372)	(119,777)
Nansemond	(72,333)	-	-	(321,302)	(317,771)	(309,813)	(301,703)	(293,438)
VIP	93,458	95,404	97,355	(378,712)	(556,930)	(556,332)	(555,732)	(555,132)
Williamsburg	-	-	-	(171,712)	(69,401)	(87,727)	(106,262)	(125,003)
TOTAL (must sum to 0)	-	-	-	-	-	-	-	-
Credits Available outside Bubble								
Army Base	-	437,732	437,656	-	-	-	-	-
Boat Harbor	-	-	-	-	-	-	-	-
Ches/Eliz	-	-	-	-	-	-	-	-
James River	-	160,904	143,083	-	-	-	-	-
Nansemond	234,146	297,538	288,418	-	-	-	-	-
VIP	-	-	-	-	-	-	-	-
Williamsburg	377,102	368,959	360,658	15,232	191,798	169,766	147,479	124,937
Expected Net Credits	611,248	1,265,133	1,229,815	15,232	191,798	169,766	147,479	124,937
Class A Sales (Purchases)	0	0	0	0	0	0	0	0
<i>Expected Class B Credits</i>	<i>611,248</i>	<i>1,265,133</i>	<i>1,229,815</i>	<i>15,232</i>	<i>191,798</i>	<i>169,766</i>	<i>147,479</i>	<i>124,937</i>
<i>WQIF-Held Credits</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>

PHOSPHORUS Credits	Exchange 5-year Planning Period					Future Projections		
	2014	2015	2016	2017	2018	2019	2020	2021
Credits Transferred within Bubble								
Army Base	13,326	(14,214)	(14,204)	(4,852)	(5,274)	(5,232)	(5,190)	(5,147)
Boat Harbor	14,124	14,391	14,660	(9,907)	(9,935)	(9,917)	(9,900)	(9,882)
Ches/Eliz	17,713	18,174	18,639	(2,428)	2,977	3,299	3,623	3,948
James River	(777)	(506)	(233)	(1,333)	(1,625)	(1,559)	(1,493)	(1,427)
Nansemond	(25,079)	(719)	(2,329)	18,928	19,634	21,226	22,848	24,501
VIP	(1,599)	-	-	-	-	-	-	-
Williamsburg	(17,708)	(17,126)	(16,533)	(408)	(5,777)	(7,817)	(9,888)	(11,993)
TOTAL (must sum to 0)	-	-	-	-	-	-	-	-
Credits Available outside Bubble								
Army Base	-	-	-	-	-	-	-	-
Boat Harbor	-	-	-	-	-	-	-	-
Ches/Eliz	-	-	-	-	-	-	-	-
James River	-	-	-	-	-	-	-	-
Nansemond	-	23,578	21,170	-	-	-	-	-
VIP	8,971	10,418	19,278	20,375	19,294	19,201	19,108	19,015
Williamsburg	-	-	-	17,125	13,105	10,694	8,248	5,763
Expected Net Credits	8,971	33,996	40,448	37,500	32,399	29,895	27,356	24,778
Class A Sales (Purchases)	0	0	0	0	0	0	0	0
<i>Expected Class B Credits</i>	<i>8,971</i>	<i>33,996</i>	<i>40,448</i>	<i>37,500</i>	<i>32,399</i>	<i>29,895</i>	<i>27,356</i>	<i>24,778</i>
<i>WQIF-Held Credits</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>

NITROGEN FACILITY SUMMARY

HRSD-Army Base
 LOWER JAMES Trading Basin



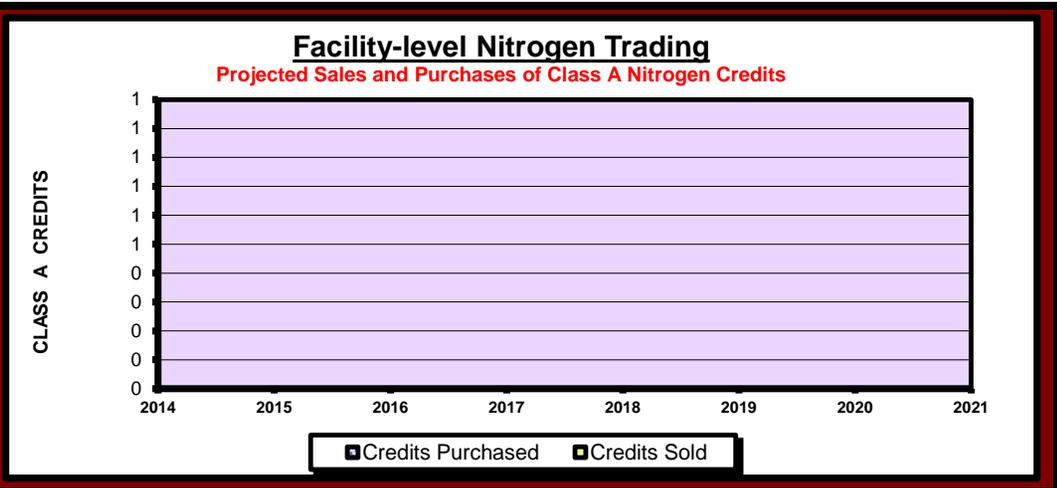
Loading & Credit Summary	
Design Flow (mgd)	18.00
Projected Flow (mgd)	11.31
Projected Avg. Annual Concentration (mg/L)	25.00
Discharged Load (end of pipe)	
Delivery Factor	1.00
Expected Load	860,961
Delivered WLA	610,000
Expected Credits (delivered)	
Transfers In (Out) within Owner Bubble	250,961
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	0
Class A Credit Sales (Purchases)	0
Expected Class B Credits	0

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00
11.31	11.31	11.32	10.99	10.85	10.87	10.88	10.90
25.00	5.00	5.00	4.50	4.50	4.50	4.50	4.50
860,961	172,268	172,344	150,658	148,759	148,949	149,140	149,331
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
860,961	172,268	172,344	150,658	148,759	148,949	149,140	149,331
610,000	610,000	610,000	441,226	441,226	441,226	441,226	441,226
(250,961)	437,732	437,656	290,568	292,467	292,277	292,086	291,895
250,961	0	0	(290,568)	(292,467)	(292,277)	(292,086)	(291,895)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	437,732	437,656	0	0	0	0	0
0	0	0	0	0	0	0	0
0	437,732	437,656	0	0	0	0	0

NITROGEN FACILITY SUMMARY

HRSD-Boat Harbor

LOWER JAMES Trading Basin



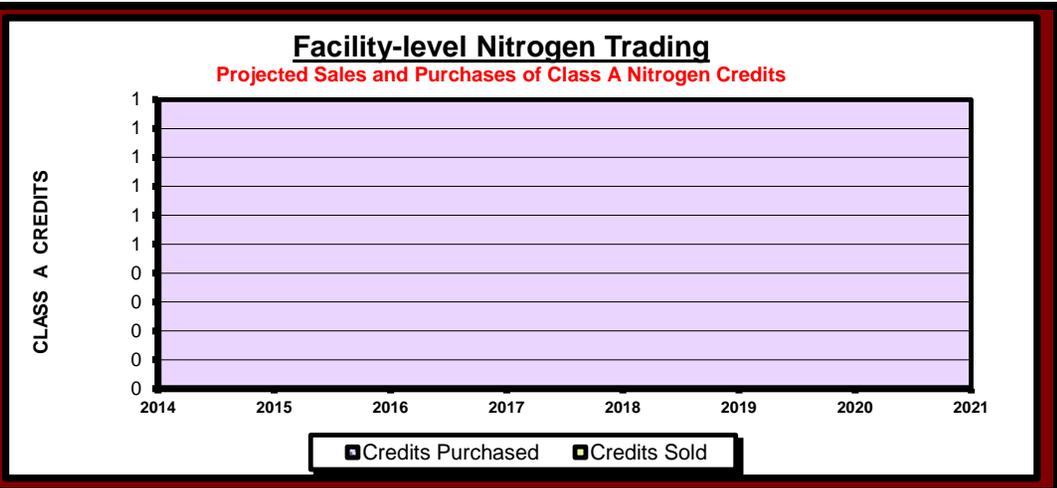
Loading & Credit Summary

Design Flow (mgd)	25.00
Projected Flow (mgd)	14.75
Projected Avg. Annual Concentration (mg/L)	24.50
Discharged Load (end of pipe)	1,100,278
Delivery Factor	1.00
Expected Load	1,100,278
Delivered WLA	740,000
Expected Credits (delivered)	(360,278)
Transfers In (Out) within Owner Bubble	360,278
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	0
Class A Credit Sales (Purchases)	0
Expected Class B Credits	0

	2014	2015	2016	2017	2018	2019	2020	2021
	Planning Period					Future Estimates (non-binding)		
Design Flow (mgd)	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Projected Flow (mgd)	14.75	14.80	14.86	14.23	14.22	14.22	14.23	14.24
Projected Avg. Annual Concentration (mg/L)	24.50	24.50	24.50	26.00	26.00	26.00	26.00	26.00
Discharged Load (end of pipe)	1,100,278	1,104,646	1,109,031	1,126,658	1,125,924	1,126,386	1,126,849	1,127,312
Delivery Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Expected Load	1,100,278	1,104,646	1,109,031	1,126,658	1,125,924	1,126,386	1,126,849	1,127,312
Delivered WLA	740,000	740,000	740,000	612,813	612,813	612,813	612,813	612,813
Expected Credits (delivered)	(360,278)	(364,646)	(369,031)	(513,845)	(513,111)	(513,573)	(514,036)	(514,499)
Transfers In (Out) within Owner Bubble	360,278	364,646	369,031	513,845	513,111	513,573	514,036	514,499
Transfers In (Out) from Private Exchange	0	0	0	0	0	0	0	0
WQIF-Held Credits	0	0	0	0	0	0	0	0
Expected Net Credits	0	0	0	0	0	0	0	0
Class A Credit Sales (Purchases)	0	0	0	0	0	0	0	0
Expected Class B Credits	0	0	0	0	0	0	0	0

NITROGEN FACILITY SUMMARY

HRSD-Ches/Eliz
 LOWER JAMES Trading Basin



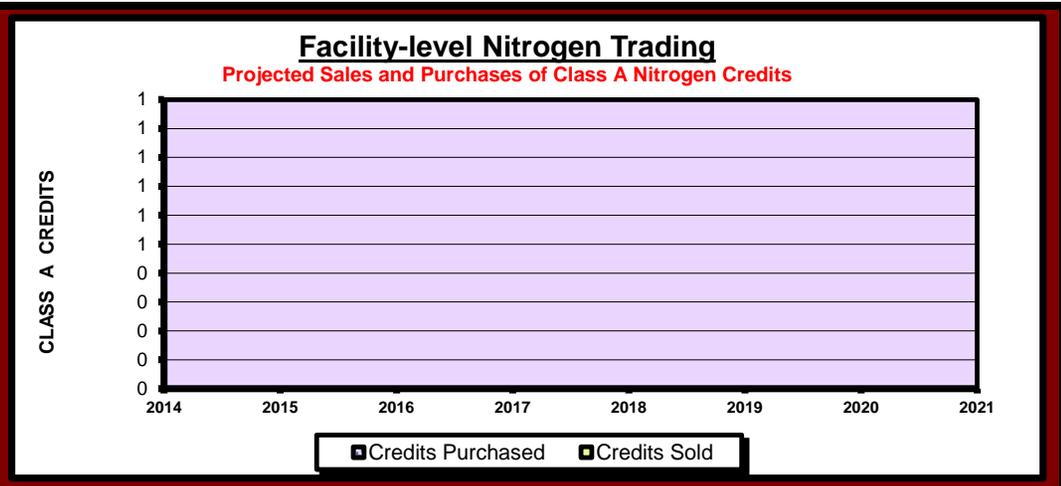
Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

	2014	2015	2016	2017	2018	2019	2020	2021
	Planning Period					Future Estimates (non-binding)		
Design Flow (mgd)	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00
Projected Flow (mgd)	15.07	15.17	15.27	15.98	17.76	17.87	17.97	18.08
Projected Avg. Annual Concentration (mg/L)	26.50	26.50	26.50	27.00	26.50	26.50	26.50	26.50
Discharged Load (end of pipe)	1,215,864	1,224,022	1,232,234	1,314,422	1,433,318	1,441,843	1,450,420	1,459,047
Delivery Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Expected Load	1,215,864	1,224,022	1,232,234	1,314,422	1,433,318	1,441,843	1,450,420	1,459,047
Delivered WLA	1,100,000	1,100,000	1,100,000	588,301	588,301	588,301	588,301	588,301
Expected Credits (delivered)	(115,864)	(124,022)	(132,234)	(726,121)	(845,017)	(853,542)	(862,119)	(870,746)
Transfers In (Out) within Owner Bubble	115,864	124,022	132,234	726,121	845,017	853,542	862,119	870,746
Transfers In (Out) from Private Exchange	0	0	0	0	0	0	0	0
WQIF-Held Credits	0	0	0	0	0	0	0	0
Expected Net Credits	0	0	0	0	0	0	0	0
Class A Credit Sales (Purchases)	0	0	0	0	0	0	0	0
Expected Class B Credits	0	0	0	0	0	0	0	0

NITROGEN FACILITY SUMMARY

HRSD-James River
 LOWER JAMES Trading Basin

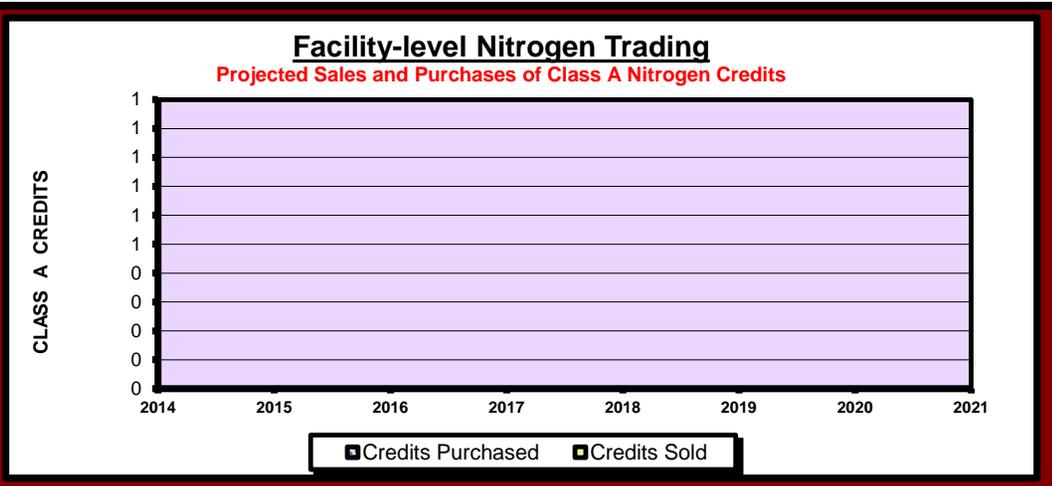


Loading & Credit Summary	
Design Flow (mgd)	20.00
Projected Flow (mgd)	13.73
Projected Avg. Annual Concentration (mg/L)	12.00
Discharged Load (end of pipe)	501,772
Delivery Factor	1.00
Expected Load	501,772
Delivered WLA	1,250,000
Expected Credits (delivered)	748,228
Transfers In (Out) within Owner Bubble	(748,228)
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	0
Class A Credit Sales (Purchases)	0
Expected Class B Credits	0

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
13.73	13.82	13.91	13.55	13.45	13.47	13.49	13.52
12.00	12.00	12.00	10.00	9.00	9.00	9.00	9.00
501,772	505,024	508,297	412,579	368,692	369,285	369,879	370,474
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
501,772	505,024	508,297	412,579	368,692	369,285	369,879	370,474
1,250,000	1,250,000	1,250,000	490,251	490,251	490,251	490,251	490,251
748,228	744,976	741,703	77,672	121,559	120,966	120,372	119,777
(748,228)	(584,072)	(598,620)	(77,672)	(121,559)	(120,966)	(120,372)	(119,777)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	160,904	143,083	0	0	0	0	0
0	0	0	0	0	0	0	0
0	160,904	143,083	0	0	0	0	0

NITROGEN FACILITY SUMMARY

HRSD-Nansemond
 LOWER JAMES Trading Basin



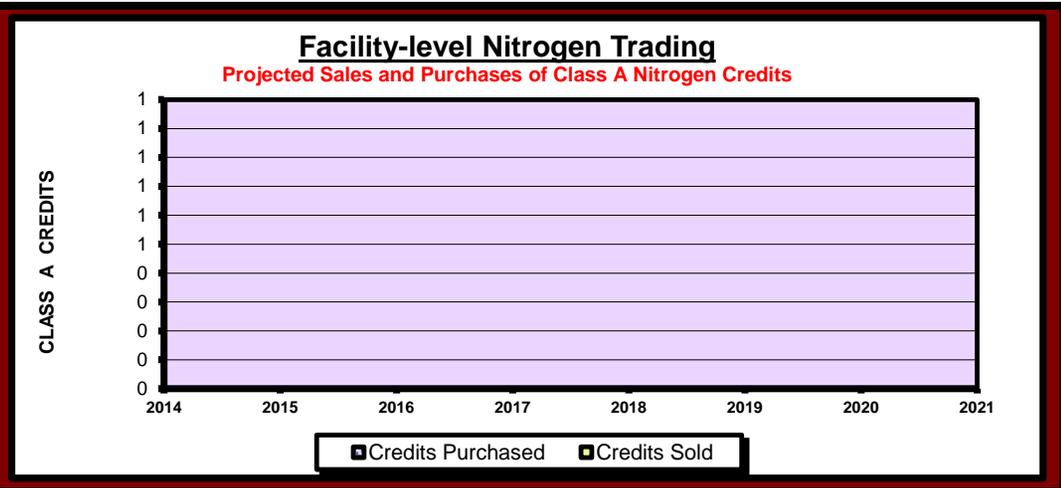
Loading & Credit Summary	
Design Flow (mgd)	
Projected Flow (mgd)	
Projected Avg. Annual Concentration (mg/L)	
Discharged Load (end of pipe)	
Delivery Factor	
Expected Load	
Delivered WLA	
Expected Credits (delivered)	
Transfers In (Out) within Owner Bubble	
Transfers In (Out) from Private Exchange	
WQIF-Held Credits	
Expected Net Credits	
Class A Credit Sales (Purchases)	
Expected Class B Credits	

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
18.20	18.57	18.94	18.13	18.28	18.63	18.99	19.35
8.00	8.00	8.00	7.50	7.50	7.50	7.50	7.50
443,521	452,462	461,582	414,074	417,605	425,563	433,673	441,938
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
443,521	452,462	461,582	414,074	417,605	425,563	433,673	441,938
750,000	750,000	750,000	735,376	735,376	735,376	735,376	735,376
306,479	297,538	288,418	321,302	317,771	309,813	301,703	293,438
(72,333)	0	0	(321,302)	(317,771)	(309,813)	(301,703)	(293,438)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
234,146	297,538	288,418	0	0	0	0	0
0	0	0	0	0	0	0	0
234,146	297,538	288,418	0	0	0	0	0

NITROGEN FACILITY SUMMARY

HRSD-VIP

LOWER JAMES Trading Basin



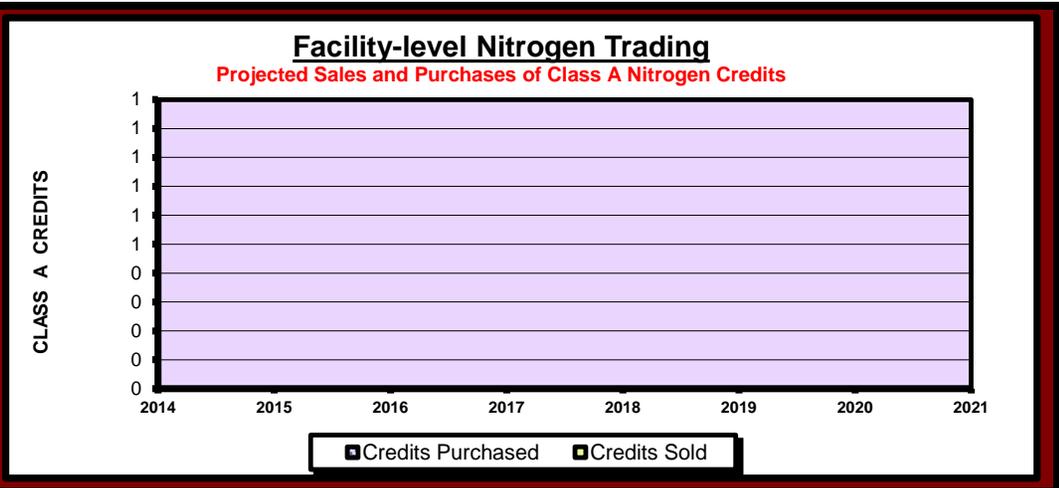
Loading & Credit Summary

Design Flow (mgd)	40.00
Projected Flow (mgd)	30.77
Projected Avg. Annual Concentration (mg/L)	9.00
Discharged Load (end of pipe)	843,458
Delivery Factor	1.00
Expected Load	843,458
Delivered WLA	750,000
Expected Credits (delivered)	(93,458)
Transfers In (Out) within Owner Bubble	93,458
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	0
Class A Credit Sales (Purchases)	0
Expected Class B Credits	0

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00
30.77	30.84	30.91	30.40	30.91	30.95	30.99	31.04
9.00	9.00	9.00	6.50	4.50	4.50	4.50	4.50
843,458	845,404	847,355	601,789	423,571	424,169	424,769	425,369
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
843,458	845,404	847,355	601,789	423,571	424,169	424,769	425,369
750,000	750,000	750,000	980,501	980,501	980,501	980,501	980,501
(93,458)	(95,404)	(97,355)	378,712	556,930	556,332	555,732	555,132
93,458	95,404	97,355	(378,712)	(556,930)	(556,332)	(555,732)	(555,132)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

NITROGEN FACILITY SUMMARY

HRSD-Williamsburg
 LOWER JAMES Trading Basin

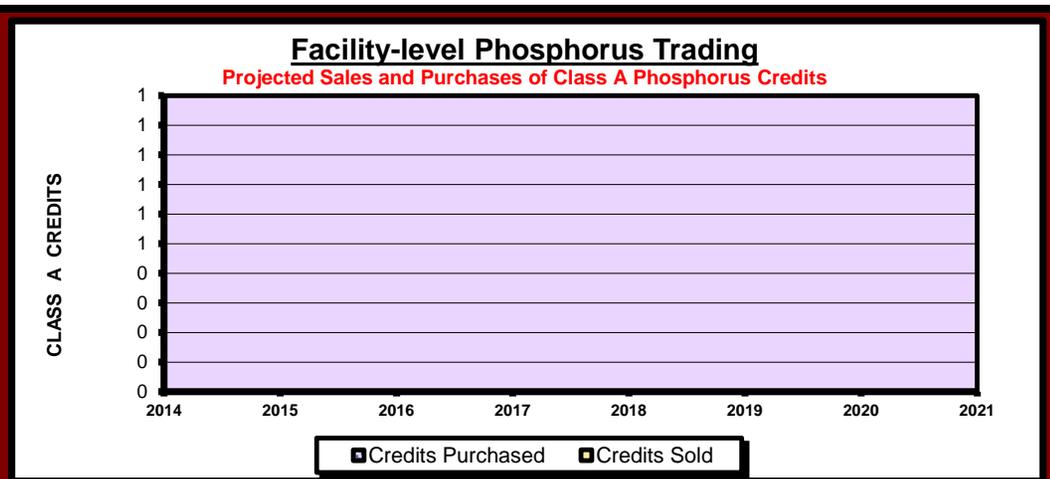


Loading & Credit Summary	
Design Flow (mgd)	
Projected Flow (mgd)	
Projected Avg. Annual Concentration (mg/L)	
Discharged Load (end of pipe)	
Delivery Factor	
Expected Load	
Delivered WLA	
Expected Credits (delivered)	
Transfers In (Out) within Owner Bubble	
Transfers In (Out) from Private Exchange	
WQIF-Held Credits	
Expected Net Credits	
Class A Credit Sales (Purchases)	
Expected Class B Credits	

2014	2015	2016	2017	2018	2019	2020	2021
<i>Planning Period</i>					<i>Future Estimates (non-binding)</i>		
22.50	22.50	22.50	22.50	22.50	22.50	22.50	22.50
9.92	10.11	10.30	9.98	9.53	9.65	9.78	9.90
14.00	14.00	14.00	12.00	10.00	10.00	10.00	10.00
422,898	431,041	439,342	364,588	290,333	294,039	297,791	301,592
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
422,898	431,041	439,342	364,588	290,333	294,039	297,791	301,592
800,000	800,000	800,000	551,532	551,532	551,532	551,532	551,532
377,102	368,959	360,658	186,944	261,199	257,493	253,741	249,940
0	0	0	(171,712)	(69,401)	(87,727)	(106,262)	(125,003)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
377,102	368,959	360,658	15,232	191,798	169,766	147,479	124,937
0	0	0	0	0	0	0	0
377,102	368,959	360,658	15,232	191,798	169,766	147,479	124,937

PHOSPHORUS FACILITY SUMMARY

HRSD-Army Base
 LOWER JAMES Trading Basin



Loading & Credit Summary

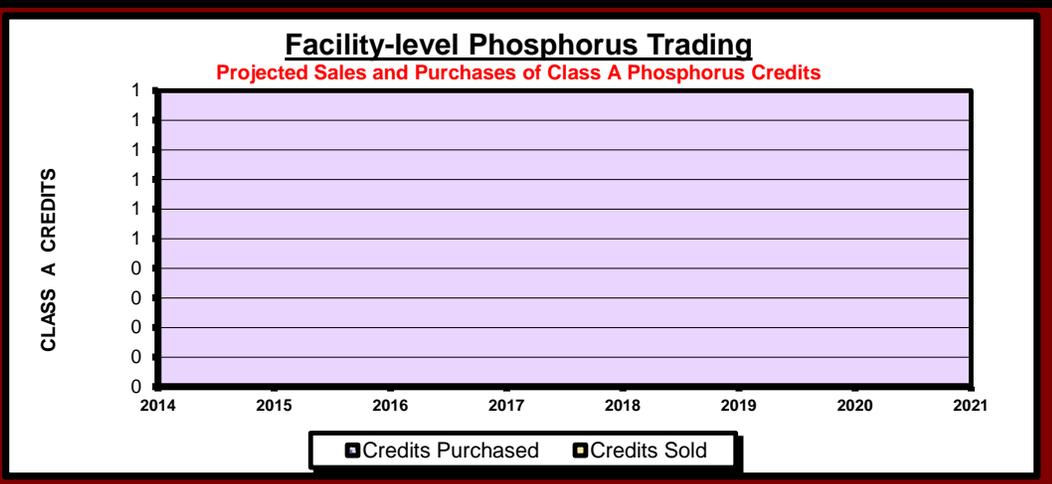
Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00
11.31	11.31	11.32	10.99	10.85	10.87	10.88	10.90
1.50	0.70	0.70	1.00	1.00	1.00	1.00	1.00
51,658	24,118	24,128	33,480	33,058	33,100	33,142	33,185
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
51,658	24,118	24,128	33,480	33,058	33,100	33,142	33,185
38,332	38,332	38,332	38,332	38,332	38,332	38,332	38,332
(13,326)	14,214	14,204	4,852	5,274	5,232	5,190	5,147
13,326	(14,214)	(14,204)	(4,852)	(5,274)	(5,232)	(5,190)	(5,147)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

PHOSPHORUS FACILITY SUMMARY

HRSD-Boat Harbor

LOWER JAMES Trading Basin



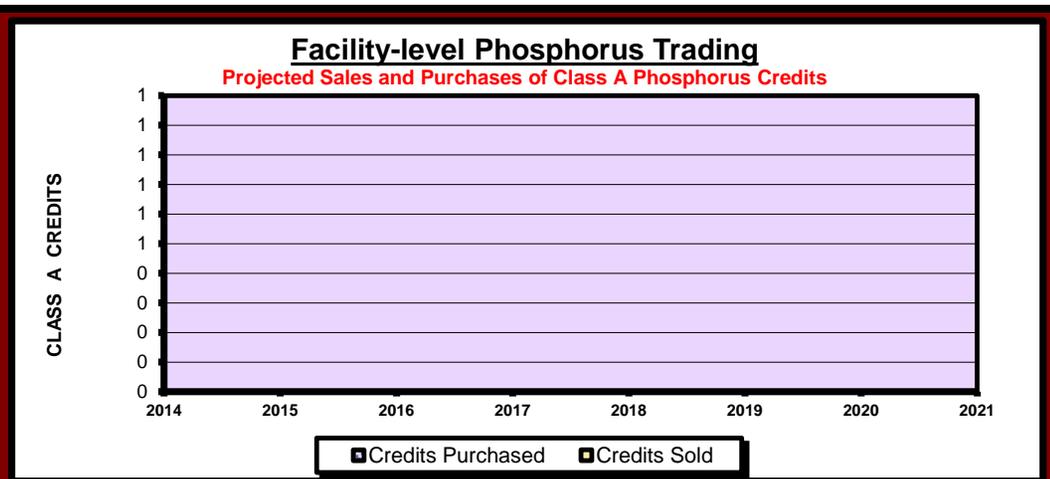
Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
14.75	14.80	14.86	14.23	14.22	14.22	14.23	14.24
1.50	1.50	1.50	1.00	1.00	1.00	1.00	1.00
67,364	67,631	67,900	43,333	43,305	43,323	43,340	43,358
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
67,364	67,631	67,900	43,333	43,305	43,323	43,340	43,358
53,240	53,240	53,240	53,240	53,240	53,240	53,240	53,240
(14,124)	(14,391)	(14,660)	9,907	9,935	9,917	9,900	9,882
14,124	14,391	14,660	(9,907)	(9,935)	(9,917)	(9,900)	(9,882)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

PHOSPHORUS FACILITY SUMMARY

HRSD-Ches/Eliz
 LOWER JAMES Trading Basin



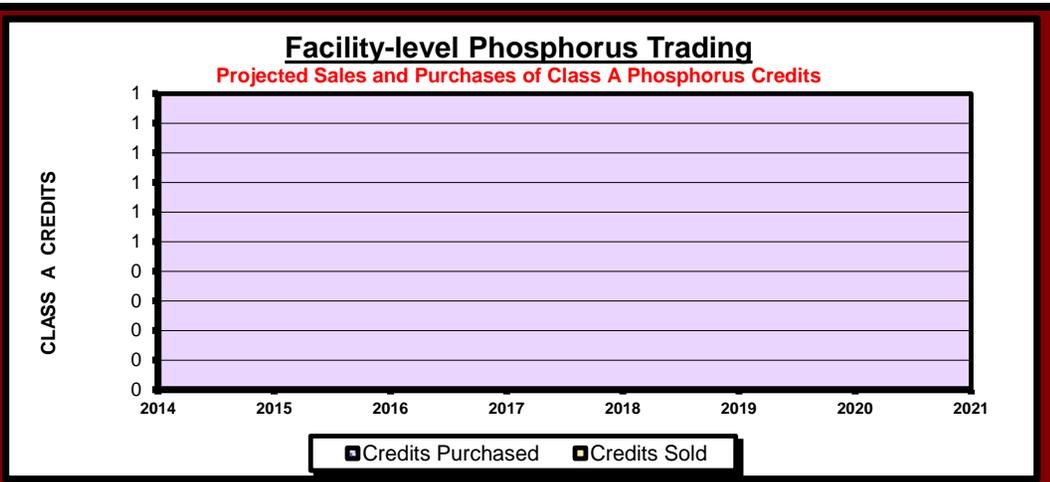
Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00
15.07	15.17	15.27	15.98	17.76	17.87	17.97	18.08
1.50	1.50	1.50	1.00	1.00	1.00	1.00	1.00
68,823	69,284	69,749	48,682	54,087	54,409	54,733	55,058
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
68,823	69,284	69,749	48,682	54,087	54,409	54,733	55,058
51,110	51,110	51,110	51,110	51,110	51,110	51,110	51,110
(17,713)	(18,174)	(18,639)	2,428	(2,977)	(3,299)	(3,623)	(3,948)
17,713	18,174	18,639	(2,428)	2,977	3,299	3,623	3,948
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

PHOSPHORUS FACILITY SUMMARY

HRSD-James River
 LOWER JAMES Trading Basin

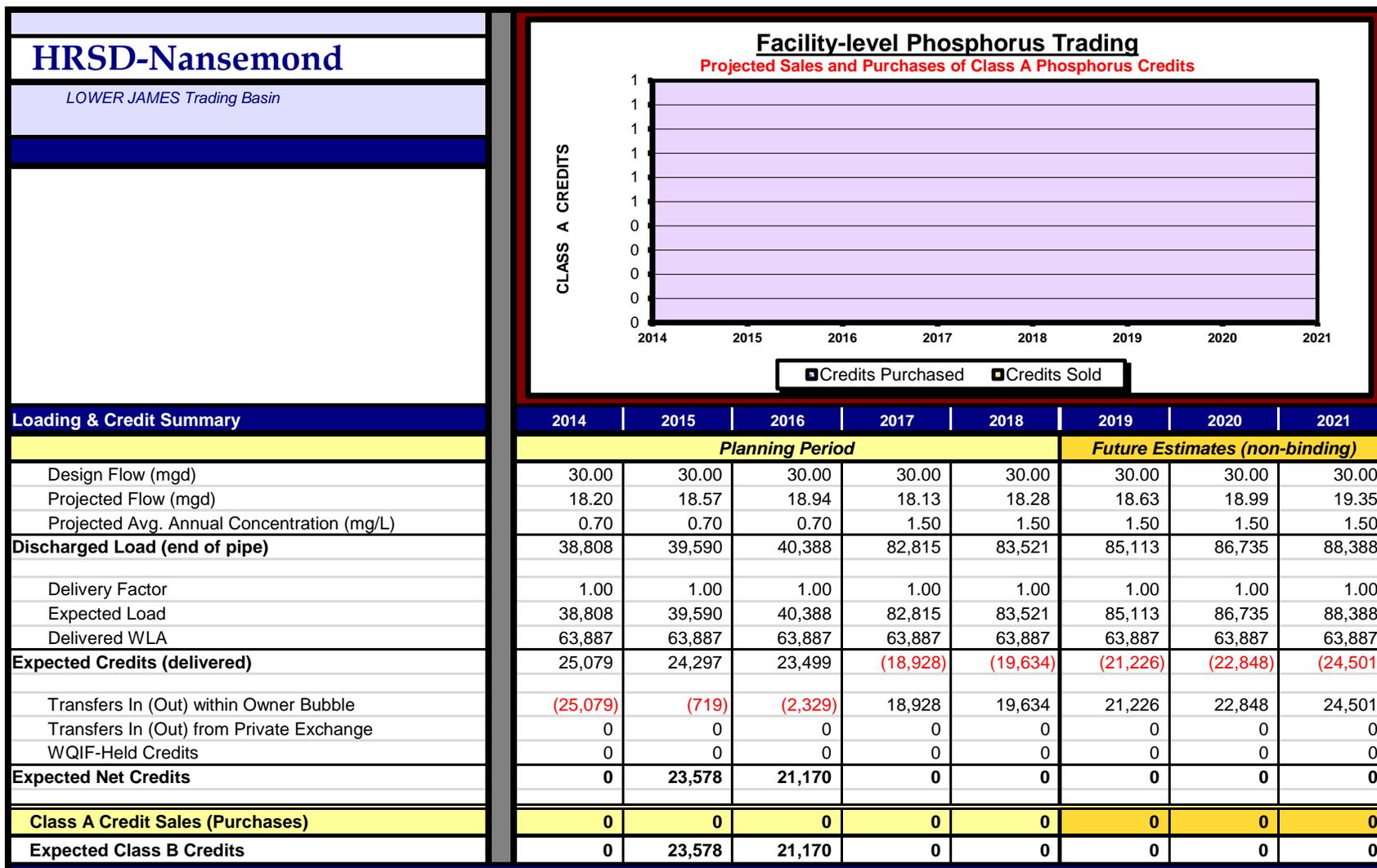


Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

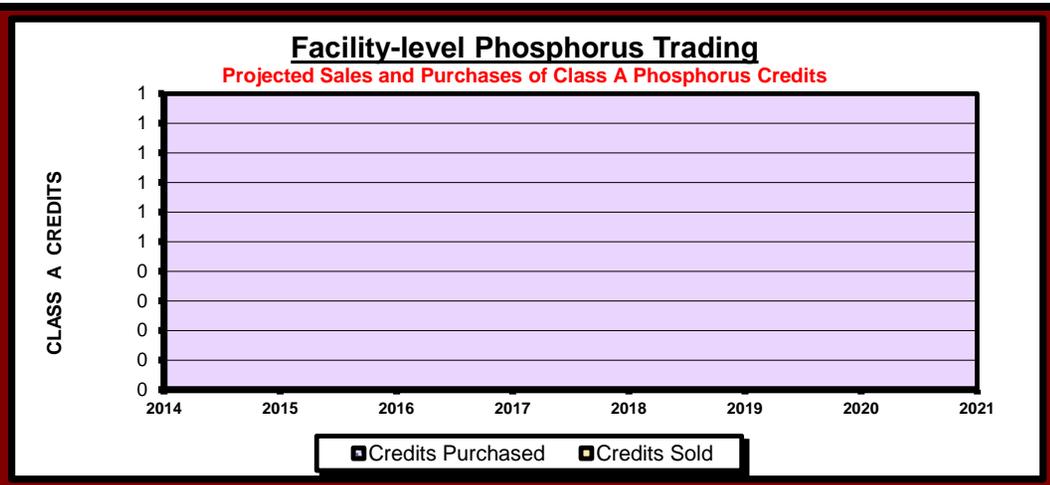
2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
13.73	13.82	13.91	13.55	13.45	13.47	13.49	13.52
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
41,814	42,085	42,358	41,258	40,966	41,032	41,098	41,164
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
41,814	42,085	42,358	41,258	40,966	41,032	41,098	41,164
42,591	42,591	42,591	42,591	42,591	42,591	42,591	42,591
777	506	233	1,333	1,625	1,559	1,493	1,427
(777)	(506)	(233)	(1,333)	(1,625)	(1,559)	(1,493)	(1,427)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

PHOSPHORUS FACILITY SUMMARY



PHOSPHORUS FACILITY SUMMARY

HRSD-VIP
<i>LOWER JAMES Trading Basin</i>



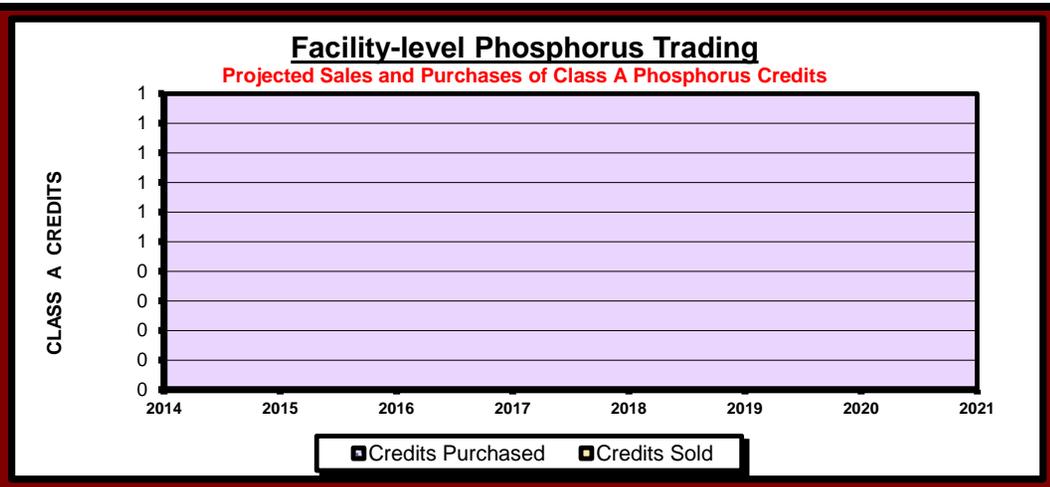
Loading & Credit Summary
Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA*
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00
30.77	30.84	30.91	30.40	30.91	30.95	30.99	31.04
0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
65,602	65,754	65,905	64,808	65,889	65,982	66,075	66,168
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
65,602	65,754	65,905	64,808	65,889	65,982	66,075	66,168
76,172	76,172	85,183	85,183	85,183	85,183	85,183	85,183
10,570	10,418	19,278	20,375	19,294	19,201	19,108	19,015
(1,599)	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
8,971	10,418	19,278	20,375	19,294	19,201	19,108	19,015
0	0	0	0	0	0	0	0
8,971	10,418	19,278	20,375	19,294	19,201	19,108	19,015

* Reflects allocation transfer to G. Robert House WTP of 9,011 of delivered pounds of TP through 2015

PHOSPHORUS FACILITY SUMMARY

HRSD-Williamsburg
 LOWER JAMES Trading Basin



Loading & Credit Summary

Design Flow (mgd)	22.50
Projected Flow (mgd)	9.92
Projected Avg. Annual Concentration (mg/L)	1.00
Discharged Load (end of pipe)	30,207
Delivery Factor	1.00
Expected Load	30,207
Delivered WLA	47,915
Expected Credits (delivered)	17,708
Transfers In (Out) within Owner Bubble	(17,708)
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	0
Class A Credit Sales (Purchases)	0
Expected Class B Credits	0

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
22.50	22.50	22.50	22.50	22.50	22.50	22.50	22.50
9.92	10.11	10.30	9.98	9.53	9.65	9.78	9.90
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
30,207	30,789	31,382	30,382	29,033	29,404	29,779	30,159
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
30,207	30,789	31,382	30,382	29,033	29,404	29,779	30,159
47,915	47,915	47,915	47,915	47,915	47,915	47,915	47,915
17,708	17,126	16,533	17,533	18,882	18,511	18,136	17,756
(17,708)	(17,126)	(16,533)	(408)	(5,777)	(7,817)	(9,888)	(11,993)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	17,125	13,105	10,694	8,248	5,763
0	0	0	0	0	0	0	0
0	0	0	17,125	13,105	10,694	8,248	5,763

FACILITY (OR OWNER BUBBLE) NAME: VAN040090 HRSD James River Aggregate

COMPLIANCE STATEMENT FOR FACILITIES SUBJECT TO REDUCED WASTELOAD ALLOCATIONS IN CHESAPEAKE BAY TMDL

Check One:

- James River TN Compliance
 York River TP Compliance

Compliance Information Required by 9 VAC 25-820-40 A 2 (Check Option 1 or Option 2)

- Option 1 (9 VAC 25-820-40 A 2 b): Permittee hereby requests WLA to be effective as of January 1, 2012.
- Option 2 (9 VAC 25-820-40 A 2 a): Additional capital project(s) is needed to ensure continued compliance with the WLA through the applicable compliance schedule deadline for the tributary. (Note: Checking Option 2 does not preclude use of credit purchase as means of compliance under II.B.)

If Option 2 is checked, briefly describe need for additional projects:

Completion of the Army Base project is needed to reliably meet the 2017 aggregate wasteload allocation. A project is required at the Virginia Initiative STP to maintain year round nitrogen removal and to reliably meet the 2017 reduced aggregate wasteload allocation.

Implementation Schedule

1. Does permittee anticipate using credit purchase to comply?
 NO YES
2. Is permittee implementing a capital project to comply?
 NO YES
(If YES, compliance is required as soon as possible but no later than the applicable tributary compliance schedule deadline.)
3. Capital Project Milestone Schedule (Specify estimated date for each milestone. For bubbles, specify facility name(s) and list multiple facility schedules if applicable.)

Army Base STP

Engineer selection	<u>8/22/2006</u>
PER/CER to DEQ	<u>10/1/2007</u>
Plans & Specifications to DEQ	<u>7/1/2009</u>
Commence construction	<u>5/3/2010</u>
Complete construction	<u>5/1/2014</u>
CTO Request to DEQ (POTWs only)	<u>6/1/2014</u>

Virginia Initiative STP

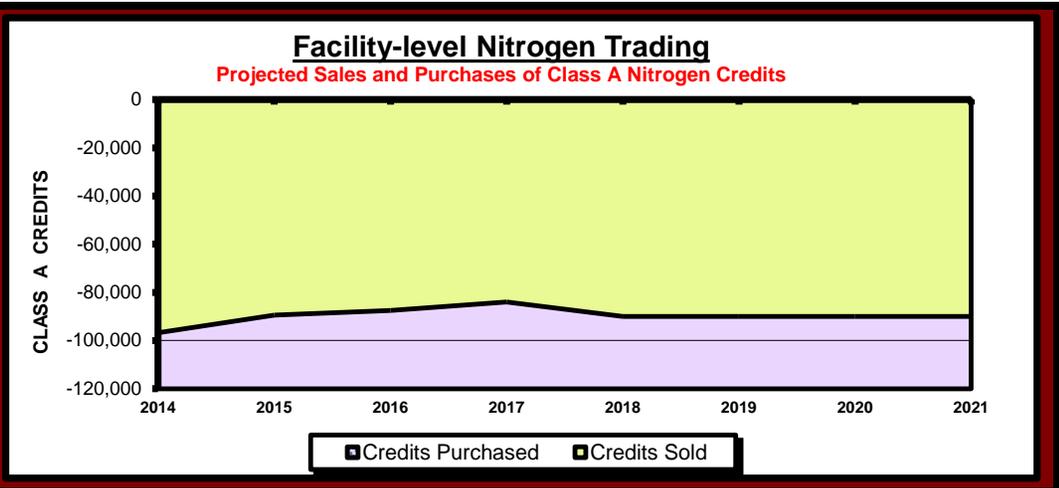
Engineer selection	<u>7/1/2011</u>
PER/CER to DEQ	<u>6/1/2012</u>
Plans & Specifications to DEQ	<u>10/1/2013</u>
Commence construction	<u>5/1/2014</u>
Complete construction	<u>1/1/2018</u>
CTO Request to DEQ (POTWs only)	<u>2/1/2018</u>

Although the VIP construction extends past 2017, HRSD anticipates compliance with the 2017 allocation without having to purchase credits. As with all upgrade projects, treatment facilities will be placed in service as they become available in order to test their construction and compatibility with current facilities. The partial implementation of the VIP upgrade coupled with the full optimization of the Army Base STP upgrade should result in compliance with the nutrient allocation for 2017.

Completion of the above plan is designed to meet HRSD's James River TN Aggregate WLA through and including the 2017 reduction (TN Aggregate WLA of 4,400,000 lbs/yr) established by the Watershed General Permit and related James River Registration List (1/8/2013) in compliance with applicable water quality standards and consistent with Chesapeake Bay TMDL Appendix X (Staged Implementation Approach for Wastewater Treatment Facilities in the Virginia James River Basin) (December 2010). By 2022, a further reduction of 1,000,000 lbs/yr is contemplated under the staged implementation approach. Due to lead times associated with completing large complex projects within the HRSD system in order to meet the 2022 TN Aggregate WLA (3,400,000 lbs/yr TN), HRSD has proactively established the following plan. The plan is to comply with the 2022 TN Aggregate WLA by undertaking another HRSD facility consolidation, here the consolidation of the Chesapeake-Elizabeth STP, within the regional system. Taking this facility offline and transferring its flows to another regional facility(ies) not only achieves compliance with the 2022 TN Aggregate WLA of 3,400,000 lbs/yr, but is also expected to require WQIF funds in a lesser amount than a facility upgrade alternative. This plan is preliminary and subject to future revision by HRSD. Additional details including discharged load projections will be added with future updates to this compliance plan.

NITROGEN FACILITY SUMMARY

Lynchburg
 UPPER JAMES Trading Basin



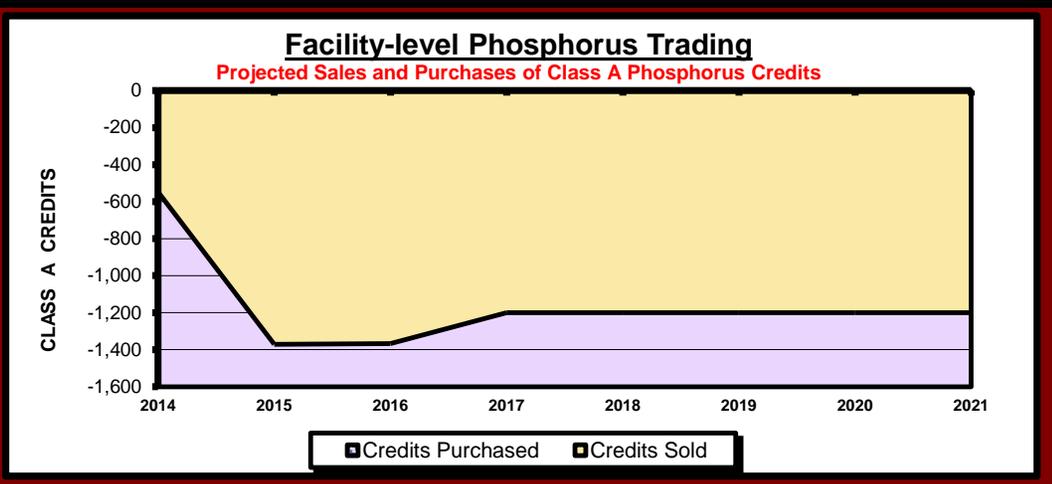
Loading & Credit Summary

Design Flow (mgd)	22.00
Projected Flow (mgd)	13.50
Projected Avg. Annual Concentration (mg/L)	8.75
Discharged Load (end of pipe)	359,757
Delivery Factor	0.61
Expected Load	219,452
Delivered WLA	326,971
Expected Credits (delivered)	107,519
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	107,519
Class A Credit Sales (Purchases)	96,767
Expected Class B Credits	10,752

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
22.00	22.00	22.00	22.00	22.00	22.00	22.00	22.00
13.50	14.00	14.50	14.60	14.62	14.63	14.64	14.65
8.75	8.75	8.75	8.75	8.50	8.50	8.50	8.50
359,757	373,081	386,405	389,070	378,472	378,731	378,989	379,248
0.61	0.61	0.65	0.65	0.65	0.65	0.65	0.65
219,452	227,579	251,164	252,896	246,007	246,175	246,343	246,511
326,971	326,971	348,412	348,412	348,412	348,412	348,412	348,412
107,519	99,392	97,248	95,516	102,405	102,237	102,069	101,901
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
107,519	99,392	97,248	95,516	102,405	102,237	102,069	101,901
96,767	89,453	87,523	84,000	90,000	90,000	90,000	90,000
10,752	9,939	9,725	11,516	12,405	12,237	12,069	11,901

PHOSPHORUS FACILITY SUMMARY

Lynchburg
<i>UPPER JAMES Trading Basin</i>



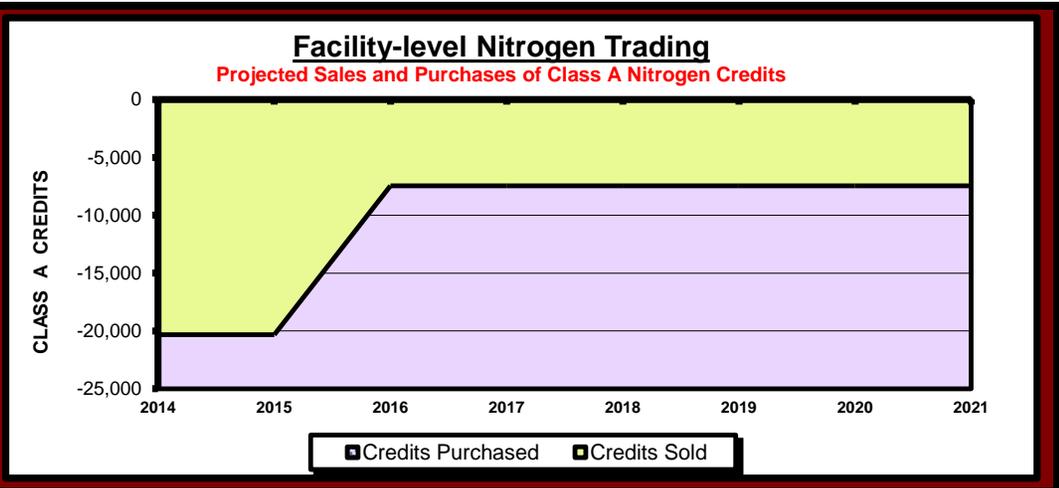
Loading & Credit Summary

Design Flow (mgd)	22.00
Projected Flow (mgd)	13.50
Projected Avg. Annual Concentration (mg/L)	0.80
Discharged Load (end of pipe)	32,892
Delivery Factor	1.00
Expected Load	32,892
Delivered WLA	33,501
Expected Credits (delivered)	609
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	609
Class A Credit Sales (Purchases)	548
Expected Class B Credits	61

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
22.00	22.00	22.00	22.00	22.00	22.00	22.00	22.00
13.50	14.00	14.50	14.60	14.62	14.63	14.64	14.65
0.80	0.75	0.70	0.70	0.70	0.70	0.70	0.70
32,892	31,978	30,912	31,126	31,168	31,190	31,211	31,232
1.00	1.00	0.66	0.66	0.66	0.66	0.66	0.66
32,892	31,978	20,402	20,543	20,571	20,585	20,599	20,613
33,501	33,501	22,111	22,111	22,111	22,111	22,111	22,111
609	1,523	1,709	1,568	1,540	1,526	1,512	1,498
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
609	1,523	1,709	1,568	1,540	1,526	1,512	1,498
548	1,371	1,367	1,200	1,200	1,200	1,200	1,200
61	152	342	368	340	326	312	298

NITROGEN FACILITY SUMMARY

MeadWestvaco
 UPPER JAMES Trading Basin



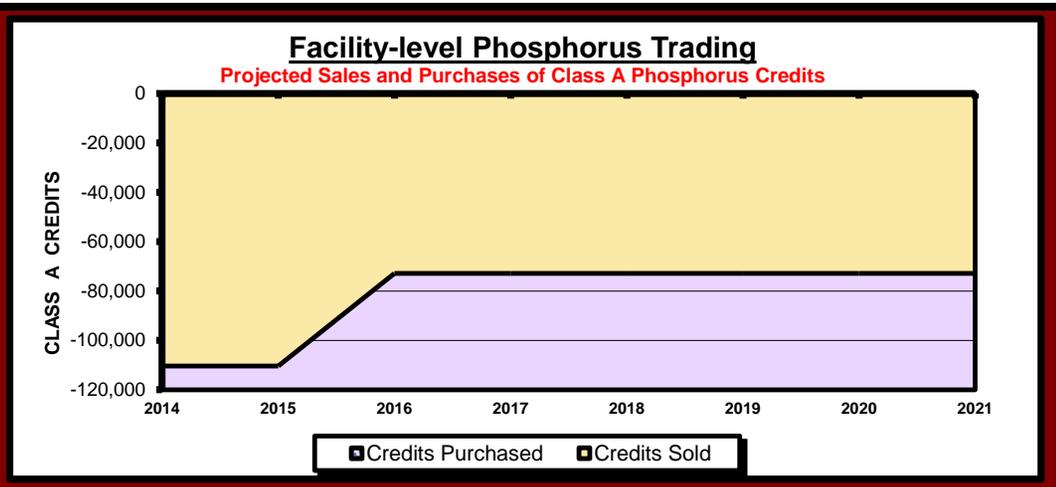
Loading & Credit Summary

Design Flow (mgd)	35.00
Projected Flow (mgd)	32.50
Projected Avg. Annual Concentration (mg/L)	3.30
Discharged Load (end of pipe)	326,636
Delivery Factor	0.30
Expected Load	97,991
Delivered WLA	118,320
Expected Credits (delivered)	20,329
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	20,329
Class A Credit Sales (Purchases)	20,329
Expected Class B Credits	0

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00
32.50	32.50	32.50	32.50	32.50	32.50	32.50	32.50
3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30
326,636	326,636	326,636	326,636	326,636	326,636	326,636	326,636
0.30	0.30	0.11	0.11	0.11	0.11	0.11	0.11
97,991	97,991	35,930	35,930	35,930	35,930	35,930	35,930
118,320	118,320	43,384	43,384	43,384	43,384	43,384	43,384
20,329	20,329	7,454	7,454	7,454	7,454	7,454	7,454
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
20,329	20,329	7,454	7,454	7,454	7,454	7,454	7,454
0	0	0	0	0	0	0	0

PHOSPHORUS FACILITY SUMMARY

MeadWestvaco
 UPPER JAMES Trading Basin



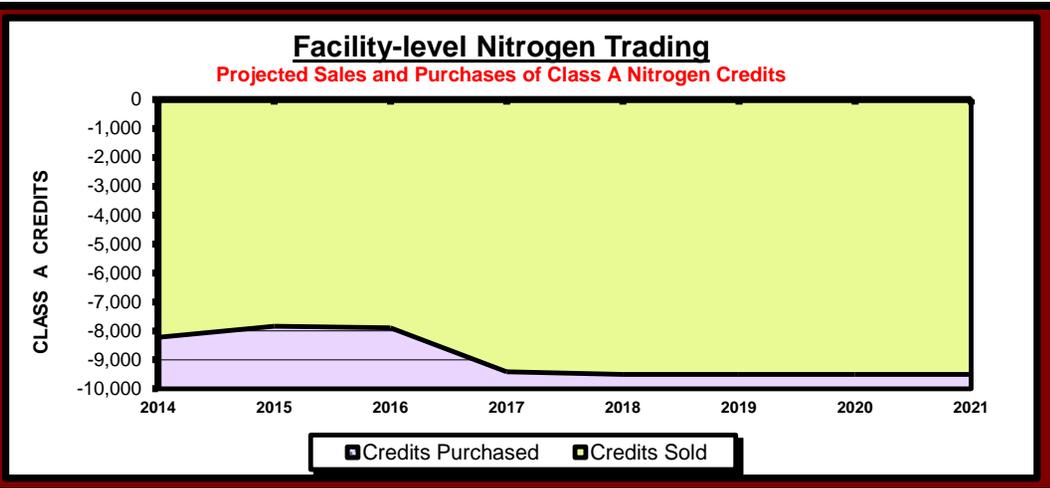
Loading & Credit Summary

Design Flow (mgd)	35.00
Projected Flow (mgd)	32.50
Projected Avg. Annual Concentration (mg/L)	0.50
Discharged Load (end of pipe)	49,490
Delivery Factor	1.00
Expected Load	49,490
Delivered WLA	159,892
Expected Credits (delivered)	110,402
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	110,402
Class A Credit Sales (Purchases)	110,402
Expected Class B Credits	0

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00
32.50	32.50	32.50	32.50	32.50	32.50	32.50	32.50
0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
49,490	49,490	49,490	49,490	49,490	49,490	49,490	49,490
1.00	1.00	0.66	0.66	0.66	0.66	0.66	0.66
49,490	49,490	32,664	32,664	32,664	32,664	32,664	32,664
159,892	159,892	105,529	105,529	105,529	105,529	105,529	105,529
110,402	110,402	72,865	72,865	72,865	72,865	72,865	72,865
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
110,402	110,402	72,865	72,865	72,865	72,865	72,865	72,865
110,402	110,402	72,865	72,865	72,865	72,865	72,865	72,865
0	0	0	0	0	0	0	0

NITROGEN FACILITY SUMMARY

MSA-Lexington
 UPPER JAMES Trading Basin



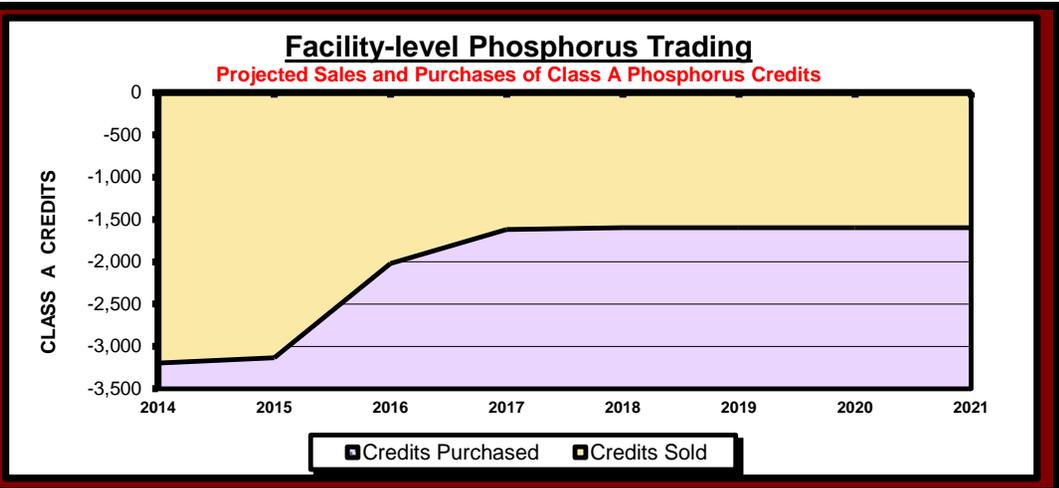
Loading & Credit Summary

Design Flow (mgd)	3.00
Projected Flow (mgd)	1.50
Projected Avg. Annual Concentration (mg/L)	6.00
Discharged Load (end of pipe)	27,410
Delivery Factor	0.30
Expected Load	8,223
Delivered WLA	16,446
Expected Credits (delivered)	8,223
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	8,223
Class A Credit Sales (Purchases)	8,223
Expected Class B Credits	0

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
1.50	1.57	1.65	1.39	1.01	1.01	1.01	1.01
6.00	6.00	6.00	6.00	4.01	4.01	4.01	4.01
27,410	28,689	30,151	25,400	12,384	12,384	12,384	12,384
0.30	0.30	0.32	0.32	0.32	0.32	0.32	0.32
8,223	8,607	9,648	8,128	3,963	3,963	3,963	3,963
16,446	16,446	17,542	17,542	17,542	17,542	17,542	17,542
8,223	7,839	7,894	9,414	13,579	13,579	13,579	13,579
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
8,223	7,839	7,894	9,414	13,579	13,579	13,579	13,579
8,223	7,839	7,894	9,414	9,505	9,505	9,505	9,505
0	0	0	0	4,074	4,074	4,074	4,074

PHOSPHORUS FACILITY SUMMARY

MSA-Lexington
 UPPER JAMES Trading Basin



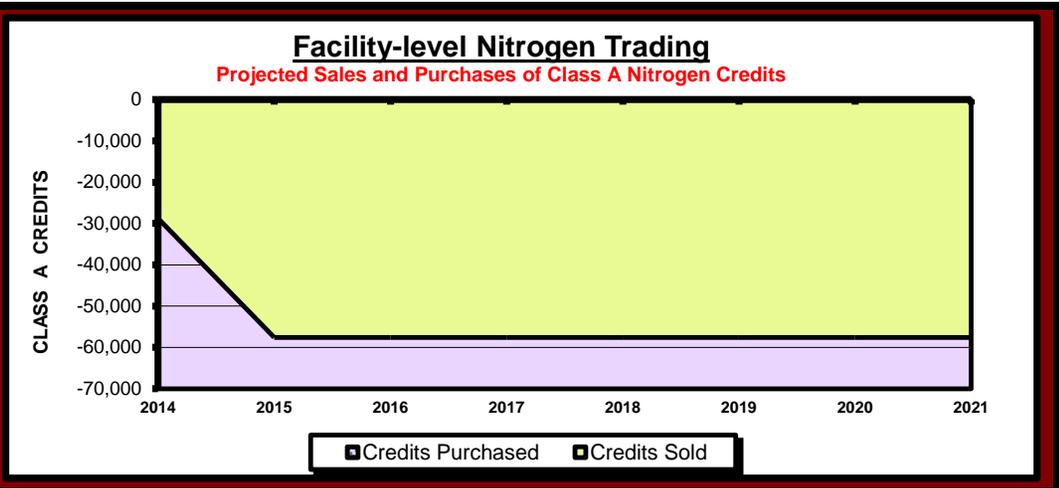
Loading & Credit Summary

Design Flow (mgd)	3.00
Projected Flow (mgd)	1.50
Projected Avg. Annual Concentration (mg/L)	0.30
Discharged Load (end of pipe)	
Delivery Factor	1.00
Expected Load	1,371
Delivered WLA	4,568
Expected Credits (delivered)	
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	3,197
Class A Credit Sales (Purchases)	3,197
Expected Class B Credits	0

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
1.50	1.57	1.65	1.39	1.01	1.01	1.01	1.01
0.30	0.30	0.30	0.50	0.36	0.36	0.36	0.36
1,371	1,434	1,508	2,117	1,112	1,112	1,112	1,112
1.00	1.00	0.66	0.66	0.66	0.66	0.66	0.66
1,371	1,434	995	1,397	734	734	734	734
4,568	4,568	3,015	3,015	3,015	3,015	3,015	3,015
3,197	3,134	2,020	1,618	2,281	2,281	2,281	2,281
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
3,197	3,134	2,020	1,618	2,281	2,281	2,281	2,281
3,197	3,134	2,020	1,618	1,597	1,597	1,597	1,597
0	0	0	0	684	684	684	684

NITROGEN FACILITY SUMMARY

Philip Morris
 UPPER JAMES Trading Basin



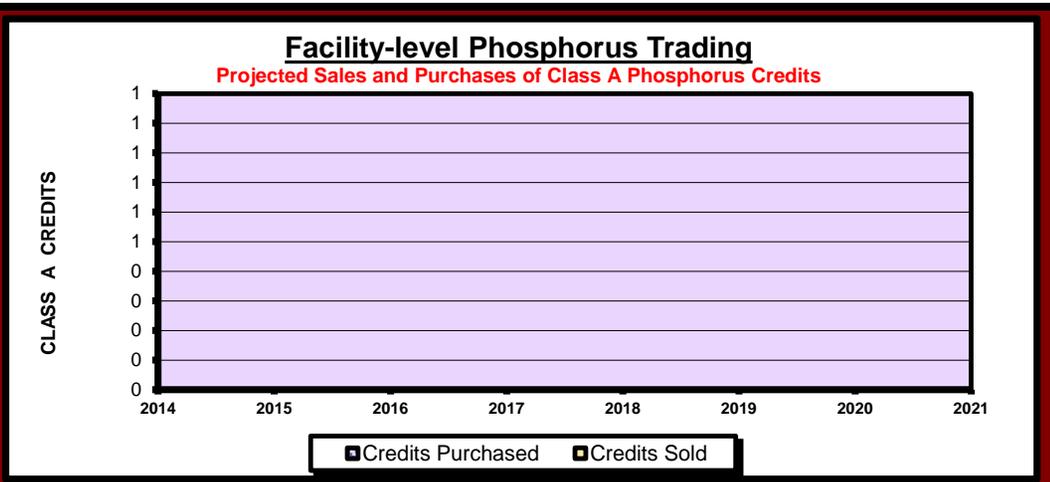
Loading & Credit Summary

Design Flow (mgd)	2.90
Projected Flow (mgd)	1.60
Projected Avg. Annual Concentration (mg/L)	13.90
Discharged Load (end of pipe)	67,733
Delivery Factor	1.00
Expected Load	67,733
Delivered WLA	139,724
Expected Credits (delivered)	71,991
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	71,991
Class A Credit Sales (Purchases)	28,796
Expected Class B Credits	43,195

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90
1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60
13.90	13.90	13.90	13.90	13.90	13.90	13.90	13.90
67,733	67,733	67,733	67,733	67,733	67,733	67,733	67,733
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
67,733	67,733	67,733	67,733	67,733	67,733	67,733	67,733
139,724	139,724	139,724	139,724	139,724	139,724	139,724	139,724
71,991	71,991	71,991	71,991	71,991	71,991	71,991	71,991
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
71,991	71,991	71,991	71,991	71,991	71,991	71,991	71,991
28,796	57,592	57,592	57,592	57,592	57,592	57,592	57,592
43,195	14,399	14,399	14,399	14,399	14,399	14,399	14,399

PHOSPHORUS FACILITY SUMMARY

Philip Morris
 UPPER JAMES Trading Basin



Loading & Credit Summary

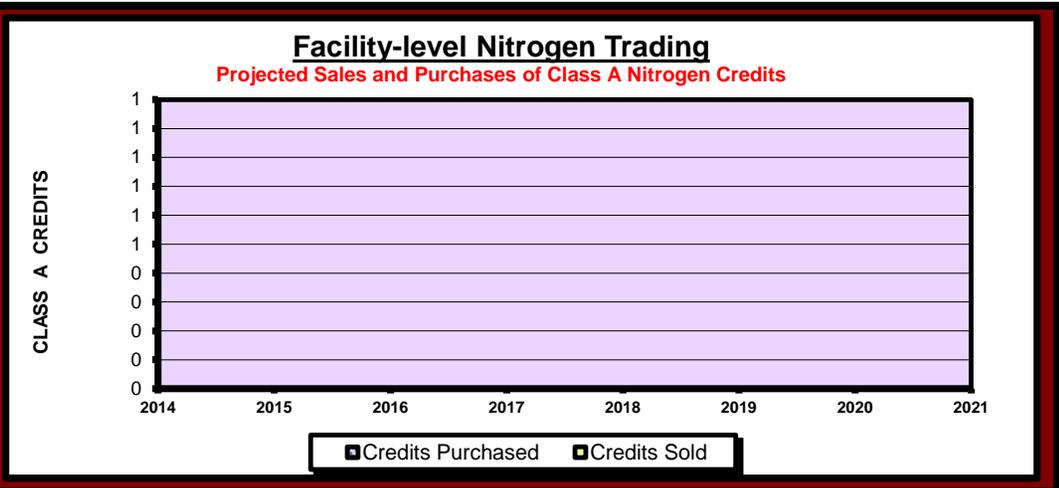
Design Flow (mgd)	Projected Flow (mgd)	Projected Avg. Annual Concentration (mg/L)	Discharged Load (end of pipe)	Delivery Factor	Expected Load	Delivered WLA	Expected Credits (delivered)	Transfers In (Out) within Owner Bubble	Transfers In (Out) from Private Exchange	WQIF-Held Credits	Expected Net Credits	Class A Credit Sales (Purchases)	Expected Class B Credits
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2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90
1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60
0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
2,436	2,436	2,436	2,436	2,436	2,436	2,436	2,436
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2,436	2,436	2,436	2,436	2,436	2,436	2,436	2,436
2,650	2,650	2,650	2,650	2,650	2,650	2,650	2,650
214	214	214	214	214	214	214	214
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
214	214	214	214	214	214	214	214
0	0	0	0	0	0	0	0
214	214	214	214	214	214	214	214

NITROGEN FACILITY SUMMARY

Richmond

UPPER JAMES Trading Basin



Loading & Credit Summary

Design Flow (mgd)	45.00
Projected Flow (mgd)	45.00
Projected Avg. Annual Concentration (mg/L)	7.98
Discharged Load (end of pipe)	1,093,652
Delivery Factor	1.00
Expected Load	1,093,652
Delivered WLA*	1,093,652
Expected Credits (delivered)	0
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	0
Class A Credit Sales (Purchases)	0
Expected Class B Credits	0

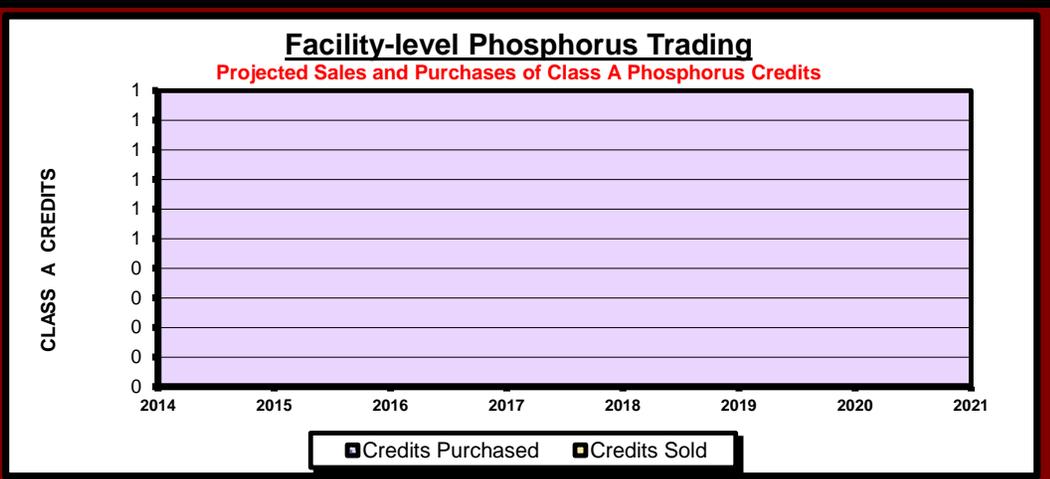
2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
7.98	7.98	7.98	7.98	7.98	7.98	7.98	7.98
1,093,652	1,093,652	1,093,652	1,093,652	1,093,652	1,093,652	1,093,652	1,093,652
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1,093,652	1,093,652	1,093,652	1,093,652	1,093,652	1,093,652	1,093,652	1,093,652
1,093,652	1,093,652	1,093,652	1,093,652	1,093,652	1,093,652	1,093,652	1,093,652
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

* Reflects allocation transfer to the Oilville WWTP of 2,750 delivered pounds of TN through 2022 based on agreement with Goochland County

PHOSPHORUS FACILITY SUMMARY

Richmond

UPPER JAMES Trading Basin



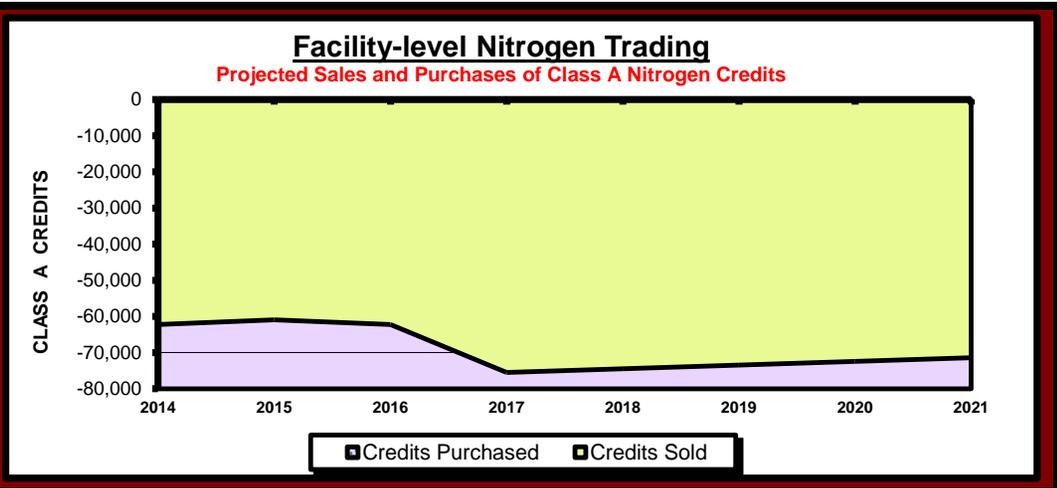
Loading & Credit Summary	
Design Flow (mgd)	
Projected Flow (mgd)	
Projected Avg. Annual Concentration (mg/L)	
Discharged Load (end of pipe)	
Delivery Factor	
Expected Load	
Delivered WLA*	
Expected Credits (delivered)	
Transfers In (Out) within Owner Bubble	
Transfers In (Out) from Private Exchange	
WQIF-Held Credits	
Expected Net Credits	
Class A Credit Sales (Purchases)	
Expected Class B Credits	

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
68,250	68,250	68,250	68,250	68,250	68,250	68,250	68,250
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
68,250	68,250	68,250	68,250	68,250	68,250	68,250	68,250
68,250	68,250	68,250	68,250	68,250	68,250	68,250	68,250
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

* Reflects allocation transfer to the Oilville WWTP of 275 delivered pounds of TP through 2022 based on agreement with Goochland County

NITROGEN FACILITY SUMMARY

RWSA-Moores Creek
 UPPER JAMES Trading Basin



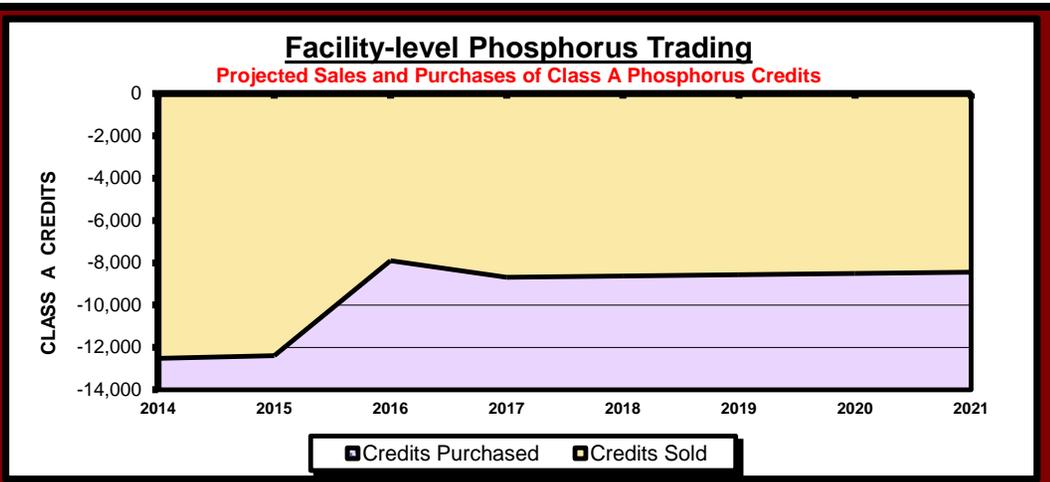
Loading & Credit Summary

Design Flow (mgd)	15.00
Projected Flow (mgd)	11.30
Projected Avg. Annual Concentration (mg/L)	5.00
Discharged Load (end of pipe)	172,074
Delivery Factor	0.61
Expected Load	104,965
Delivered WLA	167,201
Expected Credits (delivered)	62,236
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	62,236
Class A Credit Sales (Purchases)	62,236
Expected Class B Credits	0

	2014	2015	2016	2017	2018	2019	2020	2021
	Planning Period					Future Estimates (non-binding)		
Design Flow (mgd)	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
Projected Flow (mgd)	11.30	11.44	11.90	10.60	10.70	10.80	10.90	11.00
Projected Avg. Annual Concentration (mg/L)	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Discharged Load (end of pipe)	172,074	174,206	181,211	161,415	162,937	164,460	165,983	167,506
Delivery Factor	0.61	0.61	0.67	0.67	0.67	0.67	0.67	0.67
Expected Load	104,965	106,266	121,411	108,148	109,168	110,188	111,209	112,229
Delivered WLA	167,201	167,201	183,647	183,647	183,647	183,647	183,647	183,647
Expected Credits (delivered)	62,236	60,935	62,236	75,499	74,479	73,459	72,438	71,418
Transfers In (Out) within Owner Bubble	0	0	0	0	0	0	0	0
Transfers In (Out) from Private Exchange	0	0	0	0	0	0	0	0
WQIF-Held Credits	0	0	0	0	0	0	0	0
Expected Net Credits	62,236	60,935	62,236	75,499	74,479	73,459	72,438	71,418
Class A Credit Sales (Purchases)	62,236	60,935	62,236	75,499	74,479	73,459	72,438	71,418
Expected Class B Credits	0	0	0	0	0	0	0	0

PHOSPHORUS FACILITY SUMMARY

RWSA-Moores Creek
 UPPER JAMES Trading Basin



Loading & Credit Summary

Design Flow (mgd)	15.00
Projected Flow (mgd)	11.30
Projected Avg. Annual Concentration (mg/L)	0.30
Discharged Load (end of pipe)	10,324
Delivery Factor	1.00
Expected Load	10,324
Delivered WLA	22,842
Expected Credits (delivered)	12,518
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	12,518
Class A Credit Sales (Purchases)	12,518
Expected Class B Credits	0

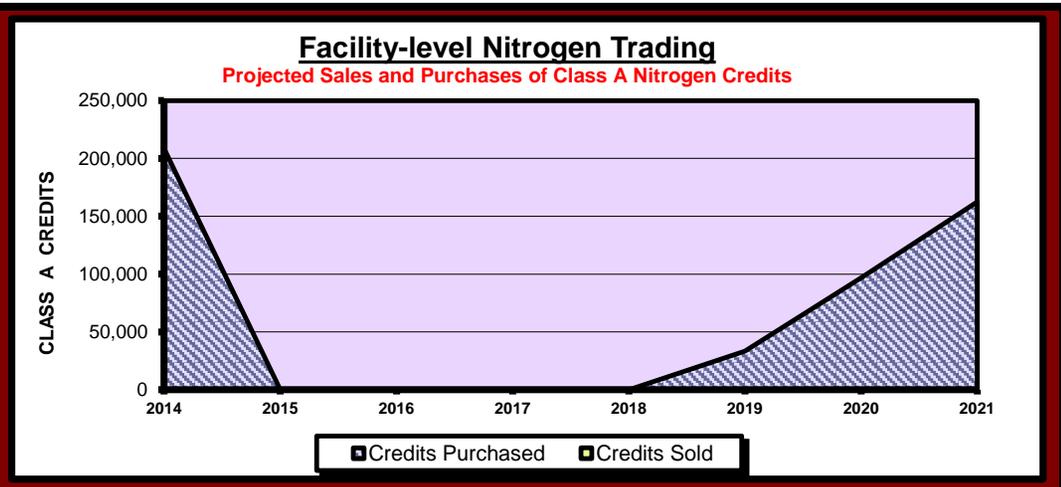
2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
11.30	11.44	11.90	10.60	10.70	10.80	10.90	11.00
0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
10,324	10,452	10,873	9,685	9,776	9,868	9,959	10,050
1.00	1.00	0.66	0.66	0.66	0.66	0.66	0.66
10,324	10,452	7,176	6,392	6,452	6,513	6,573	6,633
22,842	22,842	15,076	15,076	15,076	15,076	15,076	15,076
12,518	12,390	7,900	8,684	8,624	8,563	8,503	8,443
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
12,518	12,390	7,900	8,684	8,624	8,563	8,503	8,443
0	0	0	0	0	0	0	0

NITROGEN FACILITY SUMMARY

South Central WWA
<i>UPPER JAMES Trading Basin</i>

Loading & Credit Summary

Design Flow (mgd)	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00
Projected Flow (mgd)	14.68	15.32	15.70	16.09	16.50	16.91	17.33	17.76
Projected Avg. Annual Concentration (mg/L)	12.50	12.88	13.25	13.63	14.00	14.38	14.75	15.13
Discharged Load (end of pipe)	558,822	600,643	633,591	667,811	703,354	740,231	778,543	818,283
Delivery Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Expected Load	558,822	600,643	633,591	667,811	703,354	740,231	778,543	818,283
Delivered WLA	350,239	350,239	350,239	350,239	350,239	350,239	350,239	350,239
Expected Credits (delivered)	(208,583)	(250,404)	(283,352)	(317,572)	(353,115)	(389,992)	(428,304)	(468,044)
Transfers In (Out) within Owner Bubble	0	0	0	0	0	0	0	0
Transfers In (Out) from Private Exchange*	0	250,404	283,352	317,572	353,115	356,534	331,417	305,495
WQIF-Held Credits	0	0	0	0	0	0	0	0
Expected Net Credits	(208,583)	0	0	0	0	(33,458)	(96,887)	(162,549)
Class A Credit Sales (Purchases)	(208,583)	0	0	0	0	(33,458)	(96,887)	(162,549)
Expected Class B Credits	0	0	0	0	0	0	0	0

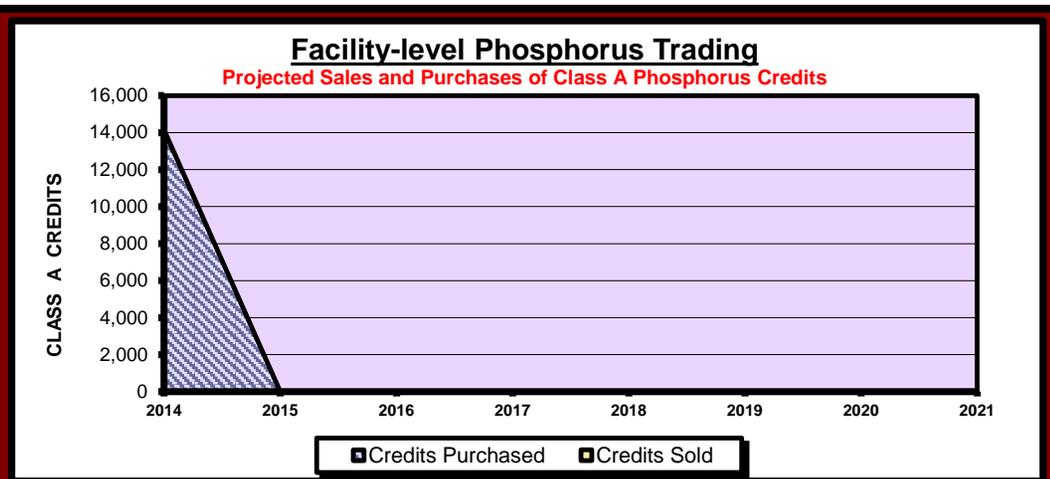


2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00
14.68	15.32	15.70	16.09	16.50	16.91	17.33	17.76
12.50	12.88	13.25	13.63	14.00	14.38	14.75	15.13
558,822	600,643	633,591	667,811	703,354	740,231	778,543	818,283
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
558,822	600,643	633,591	667,811	703,354	740,231	778,543	818,283
350,239	350,239	350,239	350,239	350,239	350,239	350,239	350,239
(208,583)	(250,404)	(283,352)	(317,572)	(353,115)	(389,992)	(428,304)	(468,044)
0	0	0	0	0	0	0	0
0	250,404	283,352	317,572	353,115	356,534	331,417	305,495
0	0	0	0	0	0	0	0
(208,583)	0	0	0	0	(33,458)	(96,887)	(162,549)
(208,583)	0	0	0	0	(33,458)	(96,887)	(162,549)
0	0	0	0	0	0	0	0

* Represents Credits provided by both Henrico County and Chesterfield County's Proctors Creek facility via Private Exchange

PHOSPHORUS FACILITY SUMMARY

South Central WWA
UPPER JAMES Trading Basin



Loading & Credit Summary

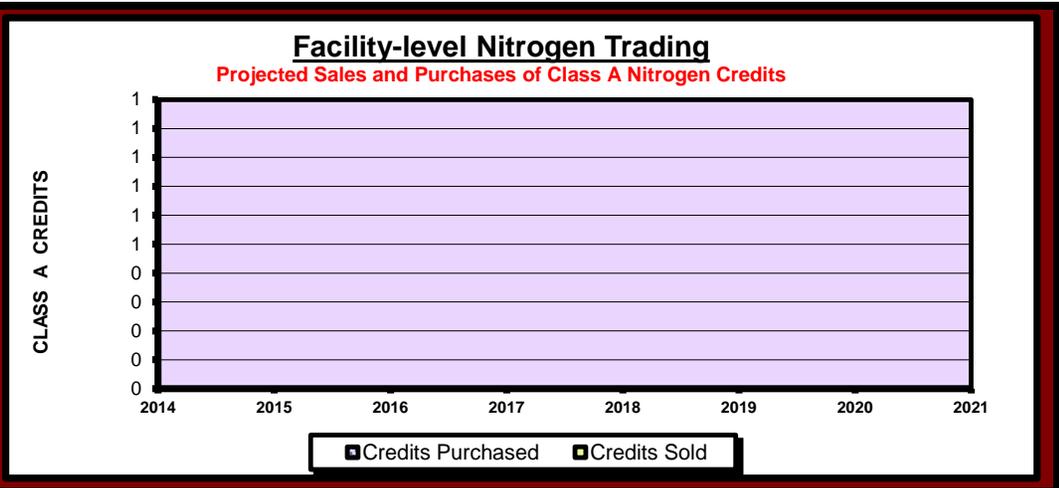
Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange*
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00
14.68	15.32	15.70	16.09	16.50	16.91	17.33	17.76
1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
49,176	51,317	52,600	53,915	55,264	56,644	58,061	59,511
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
49,176	51,317	52,600	53,915	55,264	56,644	58,061	59,511
35,024	35,024	35,024	35,024	35,024	35,024	35,024	35,024
(14,152)	(16,293)	(17,576)	(18,891)	(20,240)	(21,620)	(23,037)	(24,487)
0	0	0	0	0	0	0	0
0	16,293	17,576	18,891	20,240	21,620	23,037	24,487
0	0	0	0	0	0	0	0
(14,152)	0	0	0	0	0	0	0
(14,152)	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

* Represents Credits provided by both Henrico County and Chesterfield County's Proctors Creek facility via Private Exchange

NITROGEN FACILITY SUMMARY

Tyson Foods-Glen Allen
 UPPER JAMES Trading Basin



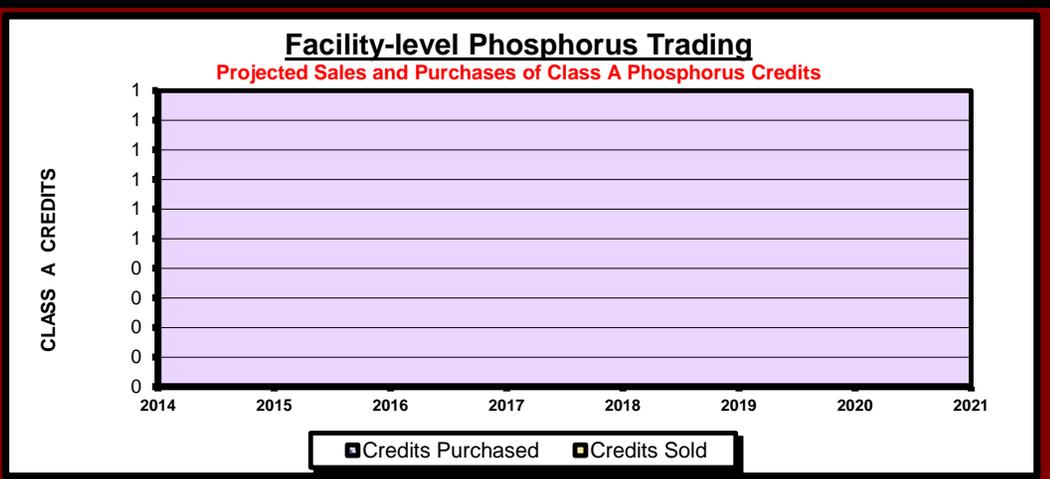
Loading & Credit Summary

Design Flow (mgd)	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Projected Flow (mgd)	1.00	1.00	1.07	1.07	1.07	1.07	1.07	1.07
Projected Avg. Annual Concentration (mg/L)	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Discharged Load (end of pipe)	18,273	18,273	19,552	19,552	19,552	19,552	19,552	19,552
Delivery Factor	1.00	1.00	0.16	0.16	0.16	0.16	0.16	0.16
Expected Load	18,273	18,273	3,128	3,128	3,128	3,128	3,128	3,128
Delivered WLA	19,552	19,552	3,128	3,128	3,128	3,128	3,128	3,128
Expected Credits (delivered)	1,279	1,279	0	0	0	0	0	0
Transfers In (Out) within Owner Bubble	0	0	0	0	0	0	0	0
Transfers In (Out) from Private Exchange	0	0	0	0	0	0	0	0
WQIF-Held Credits	0	0	0	0	0	0	0	0
Expected Net Credits	1,279	1,279	0	0	0	0	0	0
Class A Credit Sales (Purchases)	0							
Expected Class B Credits	1,279	1,279	0	0	0	0	0	0

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
1.00	1.00	1.07	1.07	1.07	1.07	1.07	1.07
6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
18,273	18,273	19,552	19,552	19,552	19,552	19,552	19,552
1.00	1.00	0.16	0.16	0.16	0.16	0.16	0.16
18,273	18,273	3,128	3,128	3,128	3,128	3,128	3,128
19,552	19,552	3,128	3,128	3,128	3,128	3,128	3,128
1,279	1,279	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
1,279	1,279	0	0	0	0	0	0
0	0	0	0	0	0	0	0
1,279	1,279	0	0	0	0	0	0

PHOSPHORUS FACILITY SUMMARY

Tyson Foods-Glen Allen
 UPPER JAMES Trading Basin



Loading & Credit Summary

Design Flow (mgd)	1.07
Projected Flow (mgd)	1.00
Projected Avg. Annual Concentration (mg/L)	0.10
Discharged Load (end of pipe)	302
Delivery Factor	1.00
Expected Load	302
Delivered WLA	409
Expected Credits (delivered)	107
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	107
Class A Credit Sales (Purchases)	0
Expected Class B Credits	107

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
1.00	1.00	1.07	1.07	1.07	1.07	1.07	1.07
0.10	0.10	0.10	0.13	0.13	0.13	0.13	0.13
302	305	326	407	407	407	407	407
1.00	1.00	0.46	0.46	0.46	0.46	0.46	0.46
302	305	150	187	187	187	187	187
409	409	188	188	188	188	188	188
107	104	38	1	1	1	1	1
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
107	104	38	1	1	1	1	1
0	0	0	0	0	0	0	0
107	104	38	1	1	1	1	1

SECTION 6

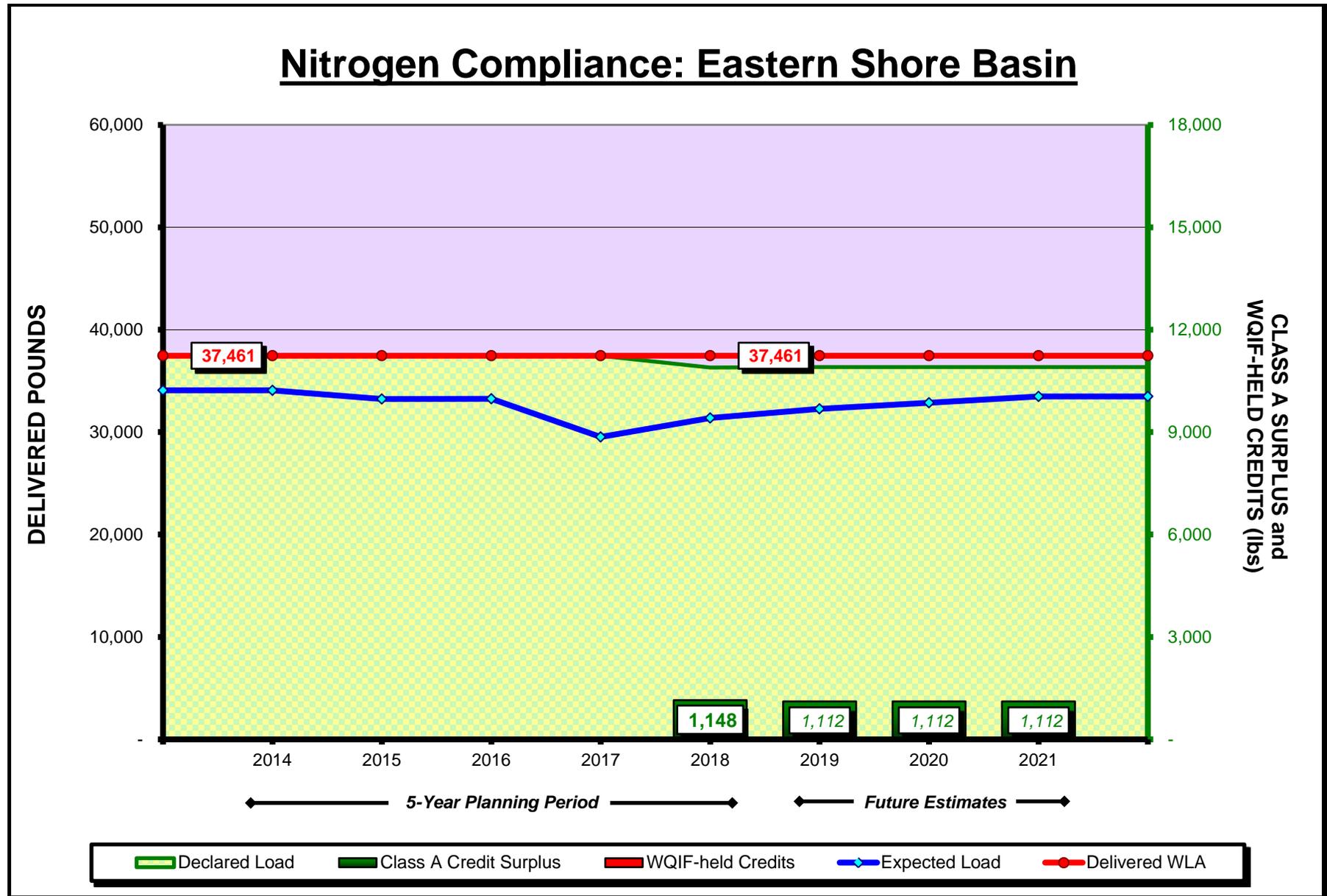
Eastern Shore Basin Exchange Compliance Plan

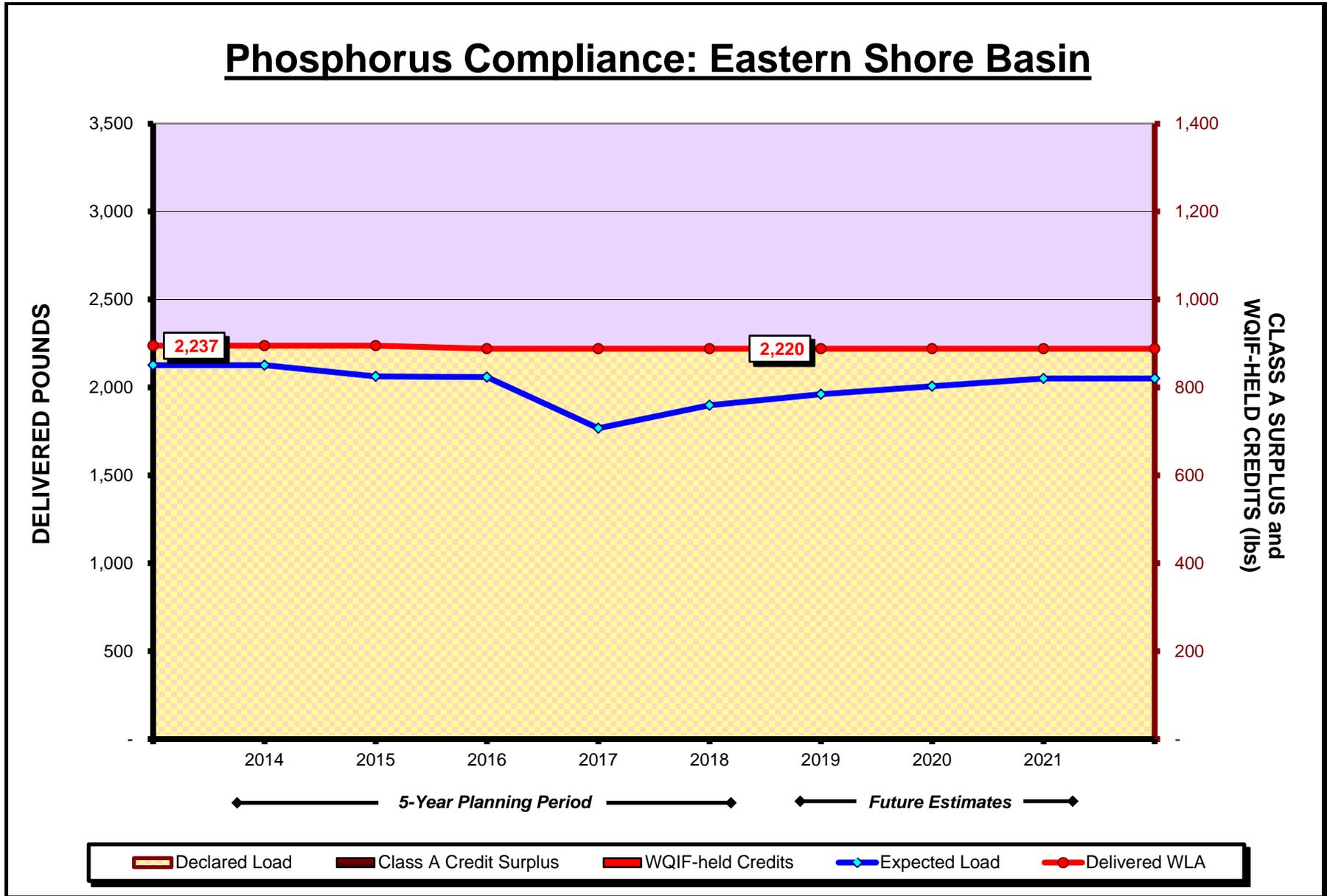


Consistent with similar disclosures made in conjunction with the original Exchange Compliance Plan dated July 31, 2007, and each annual update thereafter, Credit forecasts for the Eastern Shore basin continue to indicate a potential lack of Credit availability from facilities located within the Eastern Shore basin. This situation derives in part from the relatively small number of facilities and total allocations of the Eastern Shore basin.

In 2010, Virginia law governing nutrient allocation compliance and reporting was amended by House Bill 1290 (2010 Acts of Assembly Chapter 11) to amend the general limitation of trading to the tributary level by allowing that “permitted facilities in the Eastern Shore basin may also acquire credits from permitted facilities in the Potomac and Rappahannock tributaries.” Va. Code § 62.1-44.19:18.A.1.

Accordingly, this Annual Update incorporates use of Class A Credits from the Potomac basin to meet Eastern Shore Class A Credit purchase requests that cannot be satisfied from Class A Credit sales commitments by facilities in the Eastern Shore basin. This limited cross-basin trading is noted, as applicable, on the Credit ledgers in both this section and the Potomac section. The Nitrogen and Phosphorus compliance charts of the Eastern Shore basin illustrate the impact of Class A Credits provided by the Potomac basin (Declared Load forecast), while the Expected Load line represents the net Expected Credits of Eastern Shore facilities only.





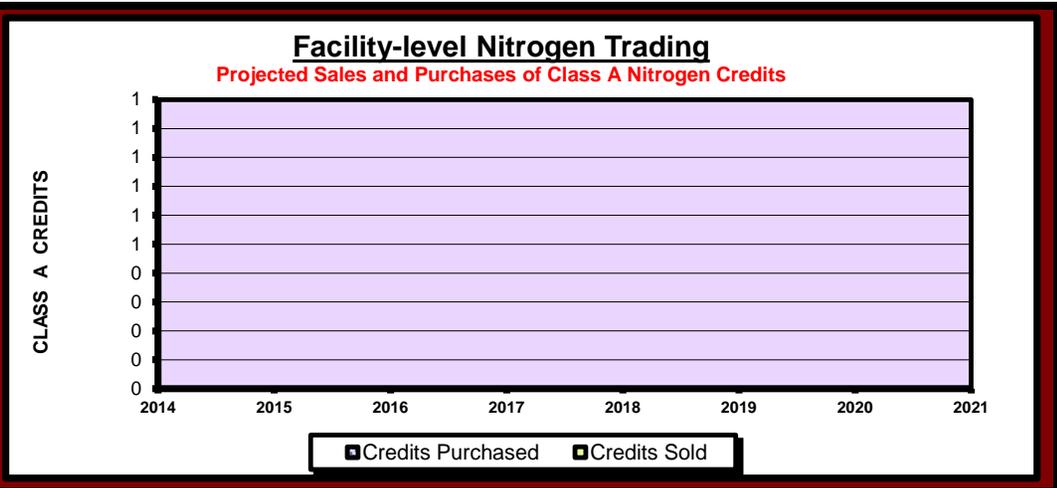
Eastern Shore Basin

Supplemental Information for Individual Facilities



NITROGEN FACILITY SUMMARY

Cape Charles
EASTERN SHORE Trading Basin



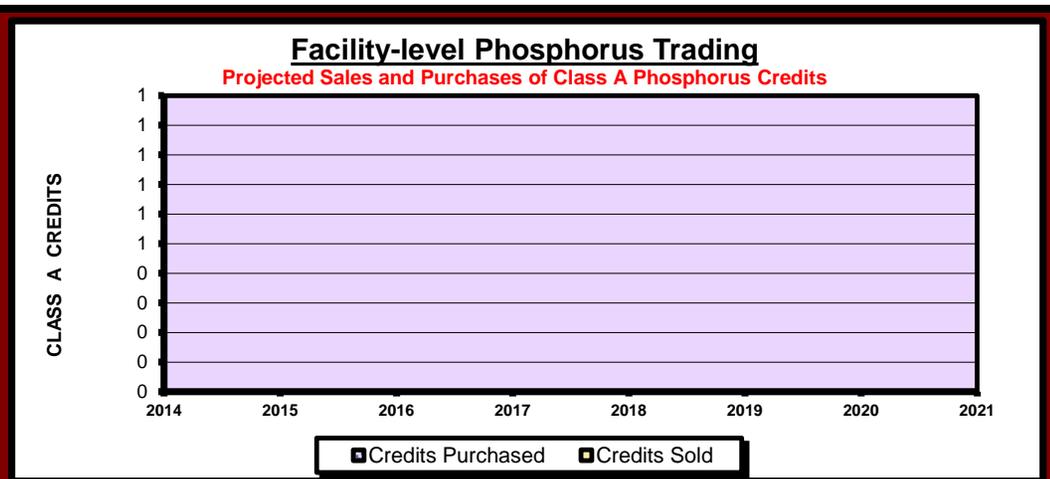
Loading & Credit Summary

Design Flow (mgd)	0.25
Projected Flow (mgd)	0.17
Projected Avg. Annual Concentration (mg/L)	4.00
Discharged Load (end of pipe)	2,071
Delivery Factor	1.00
Expected Load	2,071
Delivered WLA	3,046
Expected Credits (delivered)	975
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	975
Class A Credit Sales (Purchases)	0
Expected Class B Credits	975

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.25	0.25	0.50	0.50	0.50	0.50	0.50	0.50
0.17	0.18	0.19	0.21	0.23	0.25	0.25	0.25
4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
2,071	2,193	2,315	2,558	2,802	3,046	3,046	3,046
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2,071	2,193	2,315	2,558	2,802	3,046	3,046	3,046
3,046	3,046	3,046	3,046	3,046	3,046	3,046	3,046
975	853	731	488	244	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
975	853	731	488	244	0	0	0
0	0	0	0	0	0	0	0
975	853	731	488	244	0	0	0

PHOSPHORUS FACILITY SUMMARY

Cape Charles
EASTERN SHORE Trading Basin



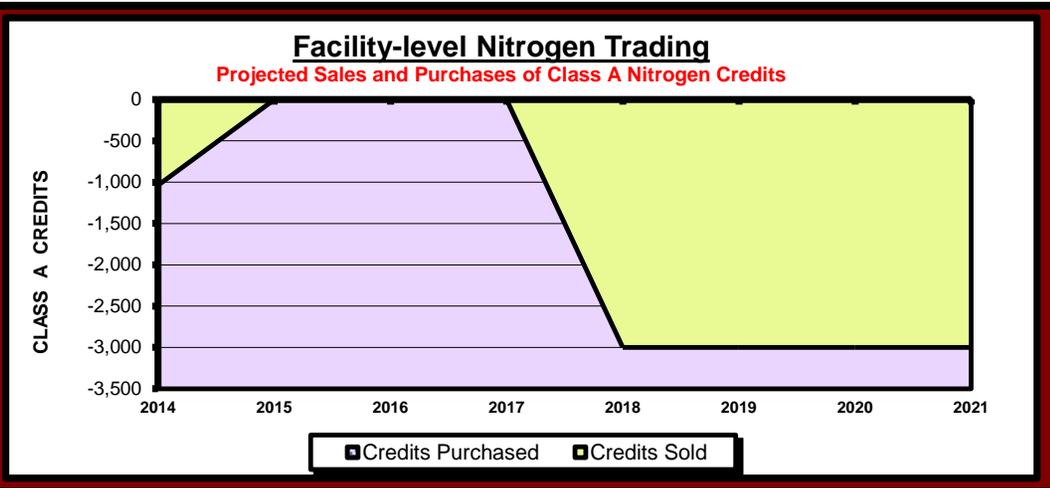
Loading & Credit Summary

Design Flow (mgd)	0.25	0.25	0.50	0.50	0.50	0.50	0.50	0.50
Projected Flow (mgd)	0.17	0.18	0.19	0.21	0.23	0.25	0.25	0.25
Projected Avg. Annual Concentration (mg/L)	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
Discharged Load (end of pipe)	155	164	174	192	210	228	228	228
Delivery Factor	1.00	1.00	0.99	0.99	0.99	0.99	0.99	0.99
Expected Load	155	164	172	190	208	226	226	226
Delivered WLA	228	228	226	226	226	226	226	226
Expected Credits (delivered)	73	64	54	36	18	0	0	0
Transfers In (Out) within Owner Bubble	0	0	0	0	0	0	0	0
Transfers In (Out) from Private Exchange	0	0	0	0	0	0	0	0
WQIF-Held Credits	0	0	0	0	0	0	0	0
Expected Net Credits	73	64	54	36	18	0	0	0
Class A Credit Sales (Purchases)	0	0	0	0	0	0	0	0
Expected Class B Credits	73	64	54	36	18	0	0	0

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.25	0.25	0.50	0.50	0.50	0.50	0.50	0.50
0.17	0.18	0.19	0.21	0.23	0.25	0.25	0.25
0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
155	164	174	192	210	228	228	228
1.00	1.00	0.99	0.99	0.99	0.99	0.99	0.99
155	164	172	190	208	226	226	226
228	228	226	226	226	226	226	226
73	64	54	36	18	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
73	64	54	36	18	0	0	0
0	0	0	0	0	0	0	0
73	64	54	36	18	0	0	0

NITROGEN FACILITY SUMMARY

Onancock
 EASTERN SHORE Trading Basin



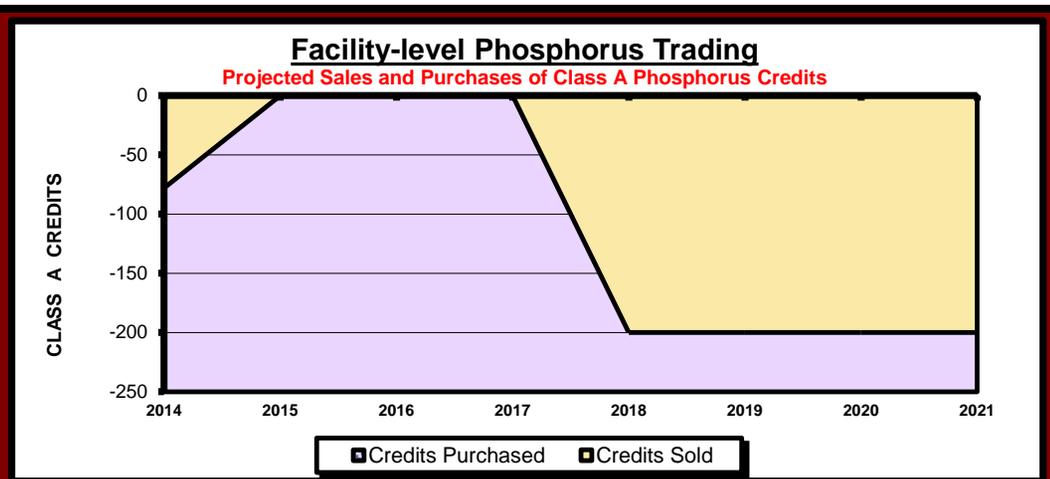
Loading & Credit Summary

Design Flow (mgd)	0.75
Projected Flow (mgd)	0.58
Projected Avg. Annual Concentration (mg/L)	4.00
Discharged Load (end of pipe)	7,066
Delivery Factor	1.00
Expected Load	7,066
Delivered WLA	9,137
Expected Credits (delivered)	2,071
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	2,071
Class A Credit Sales (Purchases)	1,036
Expected Class B Credits	1,035

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
0.58	0.50	0.55	0.23	0.35	0.40	0.45	0.50
4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
7,066	6,091	6,700	2,741	4,264	4,873	5,482	6,091
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
7,066	6,091	6,700	2,741	4,264	4,873	5,482	6,091
9,137	9,137	9,137	9,137	9,137	9,137	9,137	9,137
2,071	3,046	2,437	6,396	4,873	4,264	3,655	3,046
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
2,071	3,046	2,437	6,396	4,873	4,264	3,655	3,046
1,036	0	0	0	3,000	3,000	3,000	3,000
1,035	3,046	2,437	6,396	1,873	1,264	655	46

PHOSPHORUS FACILITY SUMMARY

Onancock
 EASTERN SHORE Trading Basin



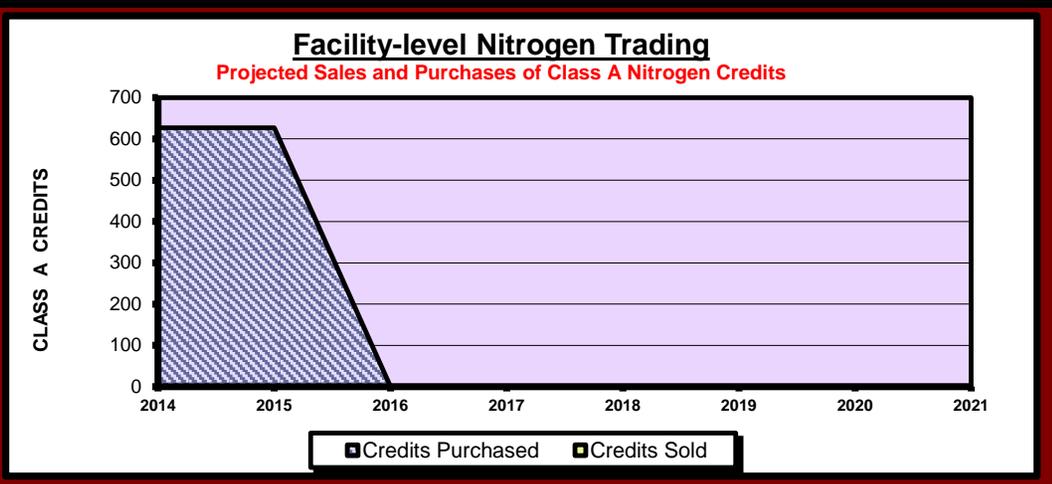
Loading & Credit Summary

Design Flow (mgd)	0.75
Projected Flow (mgd)	0.58
Projected Avg. Annual Concentration (mg/L)	0.30
Discharged Load (end of pipe)	530
Delivery Factor	1.00
Expected Load	530
Delivered WLA	685
Expected Credits (delivered)	155
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	155
Class A Credit Sales (Purchases)	78
Expected Class B Credits	77

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
0.58	0.50	0.55	0.23	0.35	0.40	0.45	0.50
0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
530	457	503	206	320	365	411	457
1.00	1.00	0.99	0.99	0.99	0.99	0.99	0.99
530	457	497	204	317	362	407	452
685	685	678	678	678	678	678	678
155	228	181	474	361	316	271	226
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
155	228	181	474	361	316	271	226
78	0	0	0	200	200	200	200
77	228	181	474	161	116	71	26

NITROGEN FACILITY SUMMARY

Shore Health Services
EASTERN SHORE Trading Basin



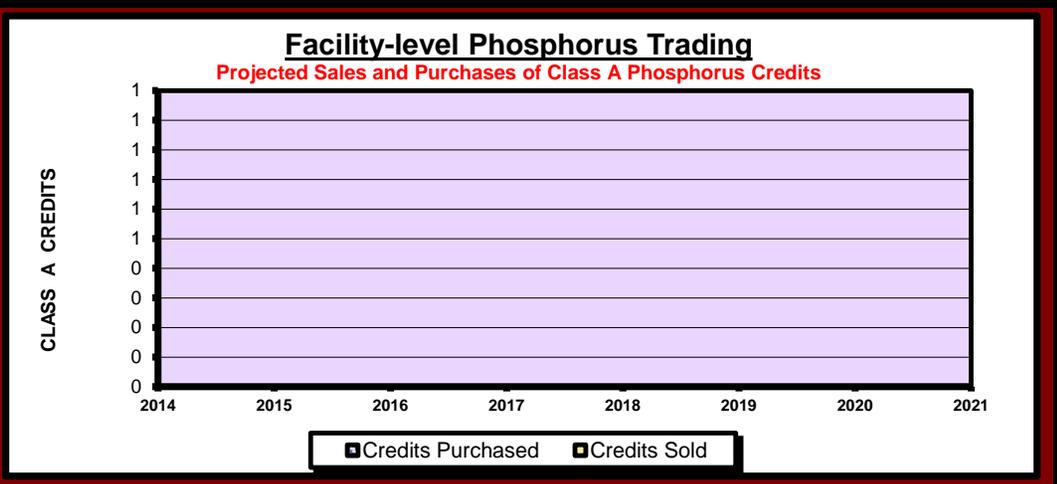
Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.02
16.20	16.20	16.20	16.20	16.20	16.20	16.20	16.20
1,845	1,845	1,135	1,135	1,135	1,135	1,135	1,135
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1,845	1,845	1,135	1,135	1,135	1,135	1,135	1,135
1,218	1,218	1,218	1,218	1,218	1,218	1,218	1,218
(627)	(627)	83	83	83	83	83	83
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
(627)	(627)	83	83	83	83	83	83
(627)	(627)	0	0	0	0	0	0
0	0	83	83	83	83	83	83

PHOSPHORUS FACILITY SUMMARY

Shore Health Services
EASTERN SHORE Trading Basin



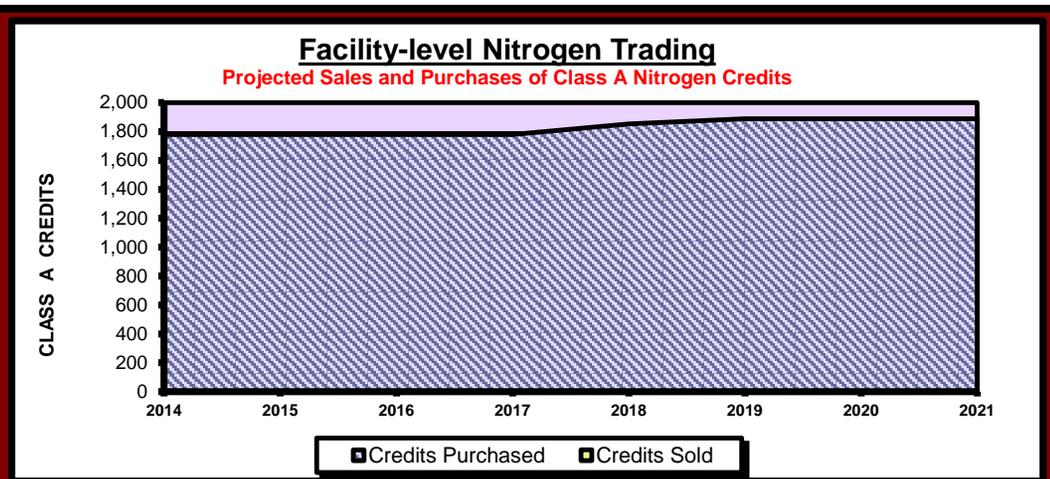
Loading & Credit Summary

Design Flow (mgd)	0.10
Projected Flow (mgd)	0.04
Projected Avg. Annual Concentration (mg/L)	0.78
Discharged Load (end of pipe)	89
Delivery Factor	1.00
Expected Load	89
Delivered WLA	91
Expected Credits (delivered)	2
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	2
Class A Credit Sales (Purchases)	0
Expected Class B Credits	2

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.02
0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
89	89	55	55	55	55	55	55
1.00	1.00	0.96	0.96	0.96	0.96	0.96	0.96
89	89	52	52	52	52	52	52
91	91	87	87	87	87	87	87
2	2	35	35	35	35	35	35
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
2	2	35	35	35	35	35	35
0	0	0	0	0	0	0	0
2	2	35	35	35	35	35	35

NITROGEN FACILITY SUMMARY

Tangier Island
 EASTERN SHORE Trading Basin

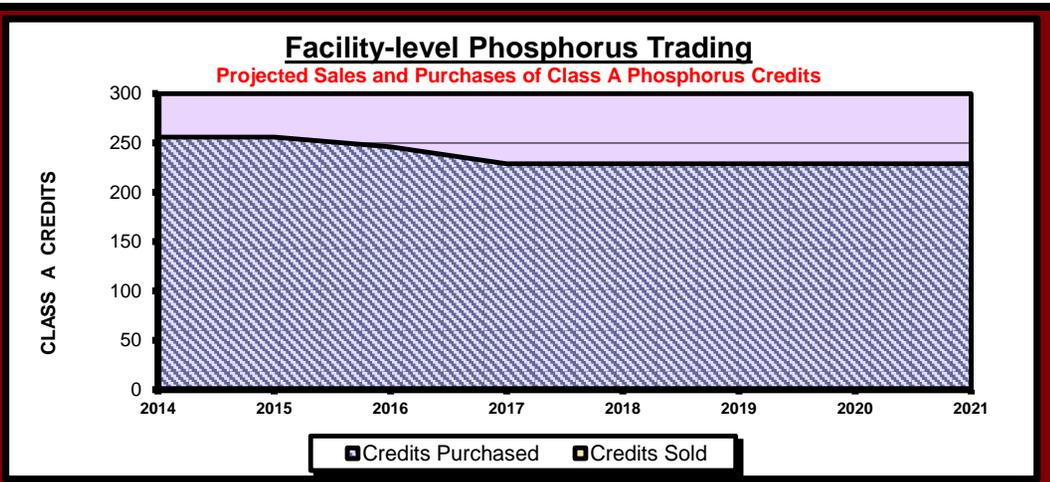


Loading & Credit Summary	
Design Flow (mgd)	0.10
Projected Flow (mgd)	0.06
Projected Avg. Annual Concentration (mg/L)	16.40
Discharged Load (end of pipe)	2,997
Delivery Factor	1.00
Expected Load	2,997
Delivered WLA	1,218
Expected Credits (delivered)	(1,779)
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	(1,779)
Class A Credit Sales (Purchases)	(1,779)
Expected Class B Credits	0

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
16.40	16.40	16.40	16.40	16.80	17.00	17.00	17.00
2,997	2,997	2,997	2,997	3,070	3,106	3,106	3,106
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2,997	2,997	2,997	2,997	3,070	3,106	3,106	3,106
1,218	1,218	1,218	1,218	1,218	1,218	1,218	1,218
(1,779)	(1,779)	(1,779)	(1,779)	(1,852)	(1,888)	(1,888)	(1,888)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
(1,779)	(1,779)	(1,779)	(1,779)	(1,852)	(1,888)	(1,888)	(1,888)
(1,779)	(1,779)	(1,779)	(1,779)	(1,852)	(1,888)	(1,888)	(1,888)
0	0	0	0	0	0	0	0

PHOSPHORUS FACILITY SUMMARY

Tangier Island
 EASTERN SHORE Trading Basin



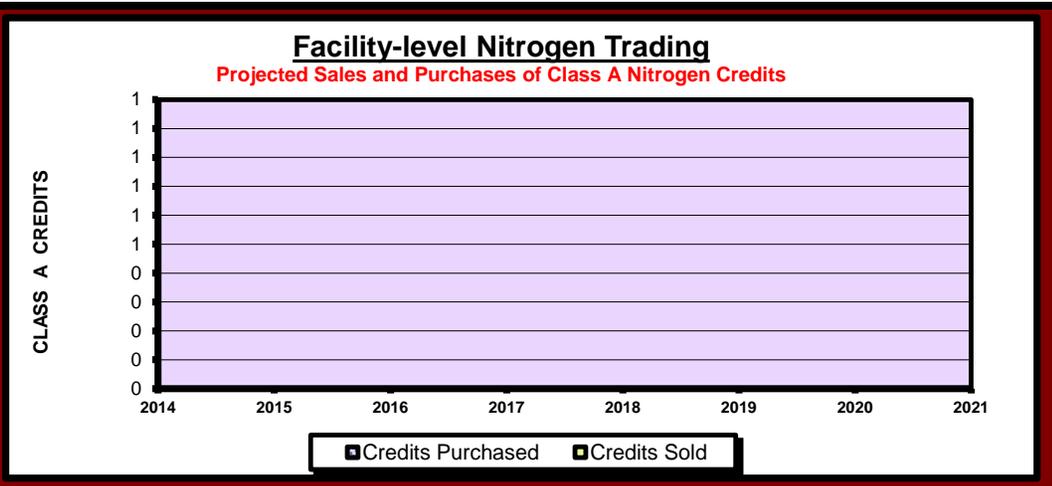
Loading & Credit Summary

Design Flow (mgd)	0.10
Projected Flow (mgd)	0.06
Projected Avg. Annual Concentration (mg/L)	1.90
Discharged Load (end of pipe)	347
Delivery Factor	1.00
Expected Load	347
Delivered WLA	91
Expected Credits (delivered)	(256)
Transfers In (Out) within Owner Bubble	0
Transfers In (Out) from Private Exchange	0
WQIF-Held Credits	0
Expected Net Credits	(256)
Class A Credit Sales (Purchases)	(256)
Expected Class B Credits	0

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
1.90	1.90	1.90	1.80	1.80	1.80	1.80	1.80
347	347	347	329	329	329	329	329
1.00	1.00	0.96	0.96	0.96	0.96	0.96	0.96
347	347	333	316	316	316	316	316
91	91	87	87	87	87	87	87
(256)	(256)	(246)	(229)	(229)	(229)	(229)	(229)
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
(256)	(256)	(246)	(229)	(229)	(229)	(229)	(229)
0	0	0	0	0	0	0	0

NITROGEN FACILITY SUMMARY

Tyson Foods-Temperanceville
EASTERN SHORE Trading Basin



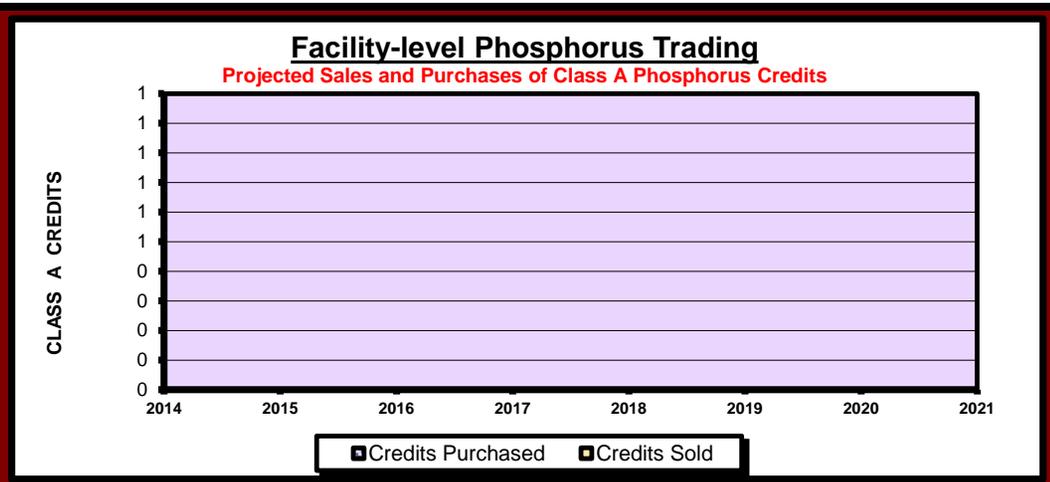
Loading & Credit Summary

Design Flow (mgd)	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Projected Flow (mgd)	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Projected Avg. Annual Concentration (mg/L)	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Discharged Load (end of pipe)	20,101							
Delivery Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Expected Load	20,101	20,101	20,101	20,101	20,101	20,101	20,101	20,101
Delivered WLA	22,842	22,842	22,842	22,842	22,842	22,842	22,842	22,842
Expected Credits (delivered)	2,741							
Transfers In (Out) within Owner Bubble	0	0	0	0	0	0	0	0
Transfers In (Out) from Private Exchange	0	0	0	0	0	0	0	0
WQIF-Held Credits	0	0	0	0	0	0	0	0
Expected Net Credits	2,741							
Class A Credit Sales (Purchases)	0							
Expected Class B Credits	2,741							

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
20,101	20,101	20,101	20,101	20,101	20,101	20,101	20,101
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
20,101	20,101	20,101	20,101	20,101	20,101	20,101	20,101
22,842	22,842	22,842	22,842	22,842	22,842	22,842	22,842
2,741	2,741	2,741	2,741	2,741	2,741	2,741	2,741
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
2,741	2,741	2,741	2,741	2,741	2,741	2,741	2,741
0	0	0	0	0	0	0	0
2,741	2,741	2,741	2,741	2,741	2,741	2,741	2,741

PHOSPHORUS FACILITY SUMMARY

Tyson Foods-Temperanceville
EASTERN SHORE Trading Basin



Loading & Credit Summary

Design Flow (mgd)
Projected Flow (mgd)
Projected Avg. Annual Concentration (mg/L)
Discharged Load (end of pipe)
Delivery Factor
Expected Load
Delivered WLA
Expected Credits (delivered)
Transfers In (Out) within Owner Bubble
Transfers In (Out) from Private Exchange
WQIF-Held Credits
Expected Net Credits
Class A Credit Sales (Purchases)
Expected Class B Credits

2014	2015	2016	2017	2018	2019	2020	2021
Planning Period					Future Estimates (non-binding)		
1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
1,005	1,005	1,005	1,005	1,005	1,005	1,005	1,005
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1,005	1,005	1,005	1,005	1,005	1,005	1,005	1,005
1,142	1,142	1,142	1,142	1,142	1,142	1,142	1,142
137	137	137	137	137	137	137	137
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
137	137	137	137	137	137	137	137
0	0	0	0	0	0	0	0
137	137	137	137	137	137	137	137

SECTION 7

Credit Exchange Special Conditions

For the Nutrient Credit Exchange Program to be successful in delivering compliance and cost savings, both for Virginia as a whole and for local ratepayers, Virginia business owners, and state taxpayers (WQIF) funding the Chesapeake Bay cleanup, the Exchange Program must attract Participants and give those Participants comfort sufficient for them to engage in a robust level of trading. During the Exchange Compliance Plan development process, a common theme from potential Participants has been the need for specific assurances that good faith participation in the Exchange Program will not result in VPDES non-compliance or contractual liability to third parties, whether due to regulatory deadlines that Participants cannot meet due to construction challenges (as in the case of potential Class A Sellers) or due to acts of third parties (as in the case of potential Class A Buyers relying on timely Credit availability). This section specifies Credit Exchange Special Conditions designed to help provide the necessary conditions for success. This section is unchanged substantively from the Exchange Compliance Plan 2013 Annual Update.

7.1 Schedule of Compliance

This Section 7.1 is based on DEQ's approval letter dated September 7, 2007 from E. Gilinsky, Ph.D., Director, Division of Water Quality, DEQ, to M. Haley, President of The Exchange (the "2007 DEQ Approval Letter") (attached as Appendix A). While the following procedure was originally developed for purposes of meeting the initial January 1, 2011 compliance schedule, it is retained here for its potential relevance going forward in light of the fact that the new Watershed General Permit reissued and effective January 1, 2012 includes new compliance schedules for York/Phosphorus and James/Nitrogen, as first reflected in the 2012 Annual Update and continued in this 2014 Annual Update.

July 31, 2007 Recommendation and Procedure (Information Only)

The July 31, 2007 plan recommended and was premised upon an aggressive tributary-parameter schedule (January 1, 2011 effective date of final effluent limits for nitrogen and phosphorus in all tributaries, except the Potomac-Shenandoah where the date would be January 1, 2013) and an implementation approach compliant with the general "as soon as possible" standard to be administered by DEQ, as follows: "Effective date for any tributary-parameter shall be extended by the DEQ Director up to but no later than December 31, 2013 based on justification provided in accordance with scheduling factors established by Virginia Code section 62.1-44.19:14 C 2 or other good cause shown."

This implementation approach was recommended in lieu of the alternative of an *across-the-board* period (12 to 24 months) previously recommended under the statutory scheduling factors. The overall benefit of this approach was that it was intended to provide for both the shortest feasible schedule for facility construction and successful startup of the Nutrient Credit Exchange Program. The specific individual benefits of this approach included: (1) this schedule adjustment may only be exercised for good cause shown, (2) the finding of good cause as well as the specific length of any adjustment are both decisions made by the DEQ Director (not by

The Exchange or any of its Participants or other permittees), and (3) it establishes a mechanism by which DEQ has the ability to make timely schedule adjustments where good cause exists.

Compliance Schedule Procedure under 2007 DEQ Approval Letter

In the 2007 DEQ Approval Letter, DEQ explained its finding that the 2011 compliance deadline should be retained at that time for both parameters in all five basins and, thus, DEQ disapproved the detailed implementation approach summarized above in this Section 7.1. In reaching this conclusion, however, DEQ acknowledged The Exchange's main concern when DEQ stated: "We share your concern with the completion of so many projects on such a tight timeline. However, at this early date it is not possible to determine how quickly individual construction projects will proceed and what the actual capabilities of the upgraded facilities will be."

Similarly, a September 12, 2007 letter from D. Paylor, Director, DEQ, to M. Haley, President of The Exchange (attached as Appendix D), also indicates that "it will be a challenge to complete so many projects on such a tight timeline, and we remain committed to working with you to shepherd these projects to completion."

The 2007 DEQ Approval Letter sets forth the following two-step implementation approach in lieu of that previously recommended by The Exchange:

1. **Monitor & Evaluate** – Future annual compliance plan updates and DEQ's semi-annual WQIF progress reports will be used along with the scheduling factors in the Virginia Code and the "as soon as possible" criterion to evaluate the need for basin schedule extensions.
2. **Adjust as Needed** – Should it prove necessary, DEQ will initiate amendment to the permit under the Administrative Process Act to make appropriate revisions to the schedule.

This procedure is also generally set forth in the Chesapeake Bay and Virginia Waters Clean-Up Plan Progress Report submitted by the Secretary of Natural Resources of the Commonwealth of Virginia to House Committee on Agriculture, Chesapeake and Natural Resources, House Appropriations Committee, Senate Committee on Agriculture, Conservation and Natural Resources, and the Senate Finance Committee (October 2007) at page 3.

Accordingly, the above two-step implementation approach shall be the operative procedure for evaluating and adjusting the compliance schedule.

As noted above, the new Watershed General Permit reissued and effective January 1, 2012 includes new compliance schedules for York/Phosphorus and James/Nitrogen as first reflected in the 2012 Annual Update.

7.2 Initial Upgrade Delays Despite Participant's Best Efforts

The focus of the Exchange Compliance Plan is on achieving initial compliance. A large number of concurrent nutrient removal upgrades are required as is evident from the Exchange Compliance Plan set forth above. Similar activities are underway throughout the Chesapeake Bay region in other states. All of these construction projects are occurring at a period where the general construction market (not only wastewater treatment) is in a period of very high demand

for professional engineers, skilled and unskilled labor, and critical materials. Prices are increasing sharply. State government is also experiencing this in key sectors such as highway and school construction.

During Exchange Compliance Plan development, owners of larger facilities such as those that either must upgrade for the basin to achieve compliance (because the facility is a large source) or which are expected to have lower unit cost upgrades (dollars per pound removed), have voiced reluctance to commit to sell Class A Credits because compliance with the initial compliance schedule deadlines is partially or significantly beyond their reasonable control, especially as compared to the January 1, 2011 initial compliance deadlines in the General Permit. Accordingly, to promote and secure the participation of these facilities, The Exchange does not intend to impose its otherwise generally applicable credit shortfall policy under these circumstances. This means that in a shortfall situation in the startup years, there is a risk that Buyers waiting on Credit availability may not have Credits available through The Exchange, if one or more linchpins are delayed in completing construction. A condition of this Exchange Compliance Plan is that neither the delayed Seller nor the waiting Buyer will be deemed to be in non-compliance or subject to enforcement action.

7.3 Timely Regulatory Approvals

One factor that impacts basin-level compliance is timely review and approval of permits, WQIF grant agreements, and engineering documents by DEQ. This Exchange Compliance Plan is premised on timely action by DEQ, including the standard turnaround times for engineering documents as specified in 9 VAC 25-790-80 C (generally 30 day turnaround deadline for technical evaluations of engineering documents).

7.4 Requested Changes Resulting From Regulatory Review

The Participants have elected to participate in this multi-party Exchange Compliance Plan on the assumption that the Exchange Compliance Plan would be accepted and approved by DEQ (and any other relevant state and federal authority) in the form presented or in a substantially similar form with no material adverse changes. In the event of any material adverse change, The Exchange reserves the right to revise this Exchange Compliance Plan and each Participant reserves the right to modify its position in it, or withdraw from it, upon notice to DEQ and The Exchange within 60 days of notice of any material adverse change in the content of the approved Exchange Compliance Plan.

7.5 WQIF Grant Denial

Numerous facility upgrades covered in Sections 2 through 6 are premised upon execution of a WQIF Grant Agreement between DEQ and the Participant for the partial funding of nutrient removal technology to be installed. Since 2005, the WQIF statute has provided at Virginia Code section 10.1-2131 B that DEQ “shall enter into grant agreements with all facilities designated as significant dischargers or eligible nonsignificant dischargers that apply for grants.” This Section 7.5 is necessary to address the amendment at Virginia Code section 10.1-1186.01 G to establish a limited exception, as follows:

Notwithstanding the provisions of subsection B of § [10.1-2131](#), the Director of the Department of Environmental Quality shall not be required to enter into a grant

agreement with a facility designated as a significant discharger or eligible nonsignificant discharger if the Director determines that the use of nutrient credits in accordance with the Chesapeake Bay Watershed Nutrient Credit Exchange Program (§ [62.1-44.19:12](#) et seq.) would be significantly more cost-effective than the installation of nutrient controls for the facility in question.

This Exchange Compliance Plan is conditioned on the execution of WQIF Grant Agreement for each WQIF eligible project set forth herein. The Exchange and the Participants reserve the right to amend this plan in the event that, pursuant to section 10.1-1186.01, DEQ declines to enter into a WQIF Grant Agreement for such a project.

7.6 WQIF Credit Availability

Access to WQIF Credits in the event of a Credit shortfall situation is an essential element for providing the certainty and comfort level required for trading-based compliance plans. Accordingly, The Exchange Compliance Plan is conditioned on the SWCB and DEQ ensuring the continued availability of Credits through the WQIF at or below the prices currently specified in the General Permit.

7.7 Annual Updates

The Exchange and the Participants reserve the right to update and amend this Exchange Compliance Plan on an annual basis consistent with applicable laws and regulations.

7.8 Effluent Nutrient Concentrations

Concentrations contained herein are estimates for information purposes only and are not to be used as a basis for any regulatory decisions.

SECTION 8

Credit Exchange Policy



CREDIT EXCHANGE POLICY FOR THE PURCHASE AND SALE OF CHESAPEAKE BAY NUTRIENT CREDITS

ARTICLE I PURPOSE

This Credit Exchange Policy (this “Policy”) of the Virginia Nutrient Credit Exchange Association, Inc. (the “Nutrient Exchange”) is adopted pursuant to Article VII of the Bylaws for the purpose of coordinating and facilitating the participation of its Members in Virginia’s Chesapeake Bay Nutrient Credit Exchange Program established by Virginia Code section 62.1-44.19:12 *et seq.* Accordingly, this Policy is intended to provide a framework for the Exchange of Credits by and among the Members and, in addition to other benefits, to satisfy the standard requirement of Virginia Water Quality Improvement Fund Grant Agreements made pursuant to Virginia Code section 10.1-2117 *et seq.* that the grantee make available for Exchange any Credits remaining after complying with its Watershed General Permit limits.

ARTICLE II DEFINITIONS

Unless otherwise defined below or a different meaning is intended by the usage herein, all terms shall have the same definition as provided in section 9 VAC 25-820-10 of the Watershed General Permit.

Actual Class B Credits – In the Reconciliation Year, the quantity of Credits remaining for the Permitted Facility after adjusting Actual Net Credits for Class A Credit purchases and sales for the immediately preceding Compliance Year. This quantity equals Actual Net Credits plus any Class A Credit purchases and minus any Class A Credit sales for the Compliance Year.

Actual Credits – Credits actually generated during the Compliance Year prior to adjusting for Preliminary Uses of Credits. Actual Credits equal Delivered WLA minus Actual Load.

Actual Load – The Delivered Load actually discharged during the Compliance Year for one or more Permitted Facilities.

Actual Net Credits – Actual Credits minus the quantity of Credits not available due to Preliminary Uses of Credits.

Board of Governors (or Board) – The board of directors of the Nutrient Exchange.

Buyer – A Participant that purchases Credits for a given Compliance Year.

Class A Buyer – A Participant that requests the availability of, and agrees in advance to purchase, a specific quantity of Credits in accordance with this Policy. Except as otherwise

provided herein, a Class A Buyer is committed to purchasing its requested and agreed amount of Class A Credits, even if the Class A Buyer actually needs a lesser amount based on actual performance of its Permit Facility in a Compliance Year.

Class A Credits – Credits for which an agreement for sale and purchase in a specific quantity is made in advance in accordance with this Policy.

Class A Pledge – The quantity of Class A Credits that the Seller specifies and agrees to sell to the Nutrient Exchange as Class A Credits in accordance with this Policy.

Class A Seller – A Participant that agrees in advance to sell Class A Credits to the Nutrient Exchange in accordance with this Policy. Except as otherwise provided herein, a Class A Seller is responsible for making up any shortfall in its agreed amount of Class A Credits for a given Compliance Year and completing such sale.

Class B Credits – Credits for which no agreement for sale and purchase in a specific quantity is made in advance but which are pledged to the Nutrient Exchange in accordance with this Policy.

Clearing Account – An account of the Nutrient Exchange used for segregating funds from Credit Exchanges from other funds of the Nutrient Exchange.

Compliance Year – Any specific calendar year for which Exchanges are planned or executed.

Credit – Each pound of TN or TP by which the Expected Load (projections) or Delivered Load (actual) is less than the Delivered WLA for a Permitted Facility (or Permitted Facility Bubble). Note that while Credits can exist only in positive quantities, for planning and implementation purposes certain Credit-related values may be stated as negative quantities. For example, when a Permitted Facility's Expected Load is projected to exceed its Delivered WLA, the Plan will show a negative quantity of Expected Credits. Additional examples may include Expected Net Credits, Actual Credits, Actual Net Credits, and Actual Class B Credits.

Delivered WLA – The TN or TP WLA assigned to a Permitted Facility, either under the Water Quality Management Planning ("WQMP") Regulation (9 VAC 25-720) or otherwise, and adjusted by the applicable delivery factor under the Watershed General Permit and expressed as pounds per year.

Delivered Load – The TN or TP load discharged by a Permitted Facility during a Compliance Year, adjusted by the applicable delivery factor under the Watershed General Permit and expressed as pounds per year.

DEQ – The Virginia Department of Environmental Quality or, where appropriate, the State Water Control Board to which the Department serves as staff.

Designated Representative – A person who is a fulltime employee of, and is designated in writing by, the Participant to act on its behalf.

Exchange – The purchase and sale of a Credit of any class.

Exchange Compliance Plan (or Plan) – The plan submitted by the Nutrient Exchange to DEQ pursuant to 9 VAC 25-820-40 A as updated periodically pursuant to 9 VAC 25-820-40 B and 9 VAC 25-820-70 Part I D of the Watershed General Permit.

Exchange Compliance Plan Update (or Plan Update) – The update of the Exchange Compliance Plan required pursuant to 9 VAC 25-820-40 B and 9 VAC 25-820-70 Part I D of the Watershed General Permit.

Expected Class B Credits – The quantity of Credits projected to be remaining for a Permitted Facility after adjusting Expected Net Credits for Class A Credit sales for the current or any future Compliance Year. This quantity equals Expected Net Credits minus any Class A Credits committed by a Class A Seller for a Compliance Year.

Expected Load – The projected Delivered Load for a given Compliance Year for one or more Permitted Facilities.

Expected Credits – The amount of Credits projected for a given Compliance Year as determined by subtracting the Expected Load from the Delivered WLA.

Expected Net Credits – Expected Credits minus the quantity of Credits projected to not be available due to Preliminary Uses of Credits.

In-Bubble Exchange – A Preliminary Use of Credits consisting of Credit use by and among the Permitted Facilities within a Permitted Facility Bubble included in the Exchange Compliance Plan. In accordance with 9 VAC 25-820-70 Part I B 2 e of the Watershed General Permit, In-Bubble Exchanges are not Exchanges or credit acquisitions as described in 9 VAC 25-820-70 Part I J 2 of the Watershed General Permit.

Neutral Participant – A Participant which projects a positive quantity of Expected Net Credits for its Permitted Facility in a given Compliance Year, but which has not elected to be a Class A Seller for that Compliance Year.

Non-Participant – An owner or operator of a Permitted Facility that is not a Participant.

Participant – A Member owner or operator of a Permitted Facility included in the Exchange Compliance Plan which has executed the Nutrient Credit Services Agreement.

Permitted Facility – A facility authorized to discharge under the Watershed General Permit. The singular refers to the plural (Permitted Facilities) where appropriate. This term also refers to a Permitted Facility Bubble where appropriate.

Permitted Facility Bubble – Multiple Permitted Facilities under common ownership or operation that are subject to aggregated WLAs pursuant to 9 VAC 25-820-70 Part I B 2 of the Watershed General Permit.

Planning Period – The rolling five-year period covered by the Exchange Compliance Plan (or Plan Update) beginning with the year in which the Plan is due to be submitted to DEQ. For example, for the Exchange Compliance Plan 2008 Annual Update due and submitted to DEQ on February 1, 2008, the Planning Period is January 1, 2008 through and including December 31, 2012.

Preliminary Use of Credits – Any of the following three planned or actual uses of Credits: In-Bubble Exchange, Private Exchange, or WQIF-Held.

Private Exchange – A Preliminary Use of Credits consisting of an Exchange planned or executed directly between or among Participants or Non-Participants rather than through the Nutrient Exchange.

Reconciliation – The process for executing Exchanges for a Compliance Year.

Reconciliation Year – For each Compliance Year, the year immediately following during which time Exchanges for the Compliance Year are executed. For example, for Compliance Year 2011, the associated Reconciliation Year is 2012.

Seller – A Participant that supplies Credits for a given Compliance Year.

TN – Total nitrogen, a pollutant the discharge of which is authorized and limited under the Watershed General Permit.

TP – Total phosphorus, a pollutant the discharge of which is authorized and limited under the Watershed General Permit.

Watershed General Permit – The General Virginia Pollutant Discharge Elimination System Watershed Permit Regulation for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Bay Watershed in Virginia (9 VAC 25-820) issued by the State Water Control Board effective for a five-year permit term beginning January 1, 2007 or as hereafter modified or reissued from time to time. Among other requirements, the Watershed General Permit imposes limitations on the discharge of TN and TP from Permitted Facilities (9 VAC 25-820-70 Part I B), and requires each permittee to submit to DEQ by August 1, 2007 and annually thereafter (currently by each February 1) a compliance plan (9 VAC 25-820-40), either individually or through the Nutrient Exchange, indicating how its facility(ies) will comply with such limitations.

WLA – A Wasteload Allocation for TN or TP as established under the Water Quality Management Planning Regulation, 9 VAC 25-720, and implemented through the Watershed General Permit. A WLA may be expressed in pounds per year as either a discharged WLA (*i.e.* end-of-pipe gross pounds) or as a Delivered WLA (*i.e.*, the discharged WLA multiplied by the

delivery factor applicable to the Permitted Facility as specified in the Watershed General Permit).

WQIF-Held – Pursuant to 9 VAC 25-820-70 Part I J 2 e of the Watershed General Permit, a Preliminary Use of Credits which consists of setting aside and not using within the Plan certain Credits associated with Permitted Facilities (or a portion thereof) not yet constructed and in operation. Such Credits are held in the Water Quality Improvement Fund administered by DEQ.

ARTICLE III GUIDING PRINCIPLES & GENERAL APPROACH

3.1 Guiding Principles. This Policy has been developed and is to be implemented in accordance with the following guiding principles adopted by the Nutrient Exchange:

(a) Guiding Principle No. 1: Environment First. The Nutrient Exchange, including its Exchange Compliance Plan and this Policy, is designed to ensure environmental protection first and foremost. Environmental protection is fostered by means of full compliance with the Watershed General Permit issued by DEQ.

(b) Guiding Principle No. 2: Voluntary Participation. Under governing laws and regulations, there is generally no requirement for a Permitted Facility to trade, *i.e.*, Exchange, Credits with any other person. Accordingly, the Nutrient Exchange, including its Exchange Compliance Plan and this Policy, is premised on the voluntary participation of Participants and their Permitted Facilities subject to applicable laws and regulations and the policies and procedures established by the Nutrient Exchange.

(c) Guiding Principle No. 3: Benefits for All. Consistent with the concept of voluntary participation, the Nutrient Exchange, including its Exchange Compliance Plan and this Policy, is designed with the intent of benefitting all Participants whether as a Buyer, Seller or Neutral.

(d) Guiding Principle No. 4: Remember the “Base Case.” This principle is a reminder that the Nutrient Exchange is a first-of-its-kind undertaking with the potential to provide significant benefits including water quality improvement, regulatory flexibility, and economic efficiency compared to the traditional regulatory approach lacking a trading option, and that the Nutrient Exchange intends to operate with this potential for broad benefit in mind.

3.2 General Approach. This Policy is designed to meet the following goals and objectives for the establishment of a successful Exchange Program: (a) a highly-structured, well-planned program, (b) a convenient and reliable Credit Exchange mechanism, (c) a practical legal structure that promotes participation by maintaining a high degree of flexibility for Participants, and (d) a fair and effective pricing methodology.

ARTICLE IV COMPLIANCE AND CREDIT EXCHANGE PLANNING

4.1 Participant-Driven Exchange Compliance Plan. The Nutrient Exchange has developed the Exchange Compliance Plan on behalf of the Participants for each of Virginia's five major river basins in accordance with the Watershed General Permit and intends to update the Plan annually by submittal of Plan Updates to DEQ. The Nutrient Exchange Compliance Plan is now and will continue to be based on the individual data provided by, and individual decisions made by, Participants with respect to their own Permitted Facilities, including revisions to relevant facility-specific information related to Class A Credit and Class B Credit Exchanges or other information, in accordance with the schedule at Attachment A and subject to acceptance by the Nutrient Exchange in accordance with this Policy and further subject to approval by DEQ.

4.2 Five-Year Planning Period. The Plan including any Plan Updates shall cover a rolling five-year Planning Period. For each Planning Period each of the following Plan elements shall be on a firm basis and may not be modified by a Participant except as provided in Section 4.8 (Modifications Within Planning Period): (a) Class A Credit sales and purchases once elected by a Participant, (b) the Class A Credit purchase price paid by a Class A Buyer (Attachment B), and (c) the Participant's commitment pursuant to Section 4.7 (Class B Credit Pledge) to provide to the Nutrient Exchange its Actual Class B Credits. With each Plan Update, Year 1 of the preceding Planning Period shall be dropped (except for purposes of Reconciliation), Year 2 through Year 5 of the preceding Planning Period (Year 1 through Year 4 of the Plan Update) shall remain unchanged with respect to the Plan elements stated in this Section as firm, and a new Year 5 shall be added based on data and information determined by each Participant with respect to its Permitted Facility. For example, in 2012, the Nutrient Exchange, in coordination with the Participants, will conduct the Reconciliation process for Compliance Year 2011 and update the five-year Plan to cover a Planning Period of 2012 through and including 2016, with the new fifth year (2016) based on data and information determined and submitted by each Participant with respect to its Permitted Facility. Without limiting the foregoing, it is nevertheless the intent of the Nutrient Exchange to accommodate through each Plan Update certain modifications related to firm elements of the Plan for the remaining four years of the Planning Period, whenever some or all of such modifications are determined by the Board in its discretion to be feasible and in the best interests of the Nutrient Exchange, as provided below in Section 4.8. Notwithstanding the foregoing provisions of this Section, if DEQ were to extend the schedule of compliance in Part I C 1 of the Watershed General Permit for any tributary (river basin) and parameter combination, the obligation of Participants to execute Exchanges of Credits for Permitted Facilities in such tributary (river basin) and for such parameter (TN or TP) as provided in the Exchange Compliance Plan shall be waived for each year prior to the first year for which compliance is required.

4.3 Annual Participant Data Update. The Nutrient Exchange may request and each Participant shall provide in a timely manner information necessary or useful for updating or otherwise administering the Plan. For purposes of Plan Updates, the Nutrient Exchange anticipates continuing to utilize a Facility Data Checklist. The most recent form of the Facility Data Checklist is attached as Attachment C and may be revised by the Nutrient Exchange from time to time. The Nutrient Exchange anticipates continuing to utilize a Compliance Deadline

Statement prior to the expiration of the schedule of compliance in Part I C 1 of the Watershed General Permit. The most recent form of the Compliance Deadline Statement is attached as Attachment D and may be revised by the Nutrient Exchange from time to time. With respect to the new fifth year of the Planning Period covered by each Plan Update, the Plan shall be based on data and information determined by the Participant during the Plan Update process. To meet applicable regulatory deadlines, Participants shall submit the requested data pursuant to the schedule at Attachment A, which may be revised by the Nutrient Exchange from time to time. Failure to meet submittal deadlines may result in omission of a Participant and its Permitted Facilities from the Plan at the discretion of the Nutrient Exchange.

4.4 Expected Net Credits. For each of its Permitted Facilities included in the Plan, the Participant will be responsible for specifying the Delivered WLA (established by regulation), Expected Load (derived from projected flow and concentration data provided by the Participant), Expected Credits, Preliminary Uses of Credits, and Expected Net Credits. Expected Net Credits is a planning figure only, and no Participant is obligated solely by its specification thereof to generate Credits in a quantity equal to or greater than the Expected Net Credits for the Planning Period.

4.5 Class A Credit Sale Obligations. Participants with Permitted Facilities projecting to generate a positive quantity of Expected Net Credits shall have the option to sell Class A Credits for a Compliance Year in the Planning Period at the premium Class A Credit price. Each such Participant shall specify its Class A Pledge as a quantity of Credits ranging from zero (0) up to the quantity of its Expected Net Credits for each year of the Planning Period, such quantity to be determined in the discretion of the Participant. Such specification shall be made for the full initial Planning Period and thereafter annually for the new fifth year of the five-year Planning Period. The Participant shall be obligated to provide to the Nutrient Exchange such quantity of Class A Credits. The specified quantity of Class A Credits shall be set forth in the Plan. Unless waived pursuant to section 5.10 (Waiver of Class A Credit Sales Obligation), the Participant agrees to sell such quantity of Credits to the Nutrient Exchange regardless of its Actual Net Credits (*i.e.*, a Class A Seller is responsible for making up any shortfall in its agreed amount of Class A Credits for a given Compliance Year and completing such sale). A Participant projecting to generate a positive quantity of Expected Net Credits but electing to make no firm Class A Credit sales obligation (*i.e.*, a Neutral Participant) shall specify a Class A Pledge of zero.

4.6 Class A Credit Purchase Obligations. For Permitted Facilities projecting Expected Net Credits in a negative quantity, to demonstrate a plan for compliance the Participant shall be obligated to purchase Credits in such quantity at the Class A Credit purchase price shown on Attachment B. For example, a Permitted Facility projecting in the 2008 Plan Update to have Expected Net Credits of TN of negative 500 for Compliance Year 2011 shall be obligated to purchase 500 TN Credits at the Class A Credit price in effect for 2011 (\$2.00 per Credit). This transaction shall be executed during the Reconciliation Year at which time the Credits shall be transferred and the price shall be paid. The Exchange Compliance Plan shall plan to meet this projected demand addressed in this Section through Class A Credit sales obligations under Section 4.5 to the extent available; however, to the extent that sufficient Class A Credits are not available, the Plan may address this demand by means of Class B Credits pledged by Participants. The Credit prices paid by a Buyer as shown on Attachment B are firm

for the Planning Period and shall be updated annually to include such price for the new fifth year of the Plan Update.

4.7 Class B Credit Pledge. By participating in the Exchange Compliance Plan, each Participant pledges one hundred percent of its Expected Class B Credits and agrees to transfer one hundred percent of its Actual Class B Credits from its Permitted Facilities to the Nutrient Exchange. The quantity of Expected Class B Credits is a projection only and it accommodates Preliminary Uses of Credits, including Private Exchanges planned and disclosed by the Participant in accordance with Section 4.9. Without limiting this pledge requirement, it is acknowledged and understood that Actual Class B Credits are anticipated to vary from the projection of Expected Class B Credits and that the Participant has no obligation to provide Actual Class B Credits in the same quantity as Expected Class B Credits, so long as the Participant transfers all of its Actual Class B Credits to the Nutrient Exchange. Among other purposes, it is the intent of this Section to enable Participants, which have entered into or will enter into a Virginia Water Quality Improvement Fund Grant Agreement with DEQ (*i.e.*, the owners of eligible municipal wastewater treatment plants) to satisfy the following standard provision of the typical grant agreement: “To aid in implementing the Nutrient Credit Exchange Program, the Grantee shall make all Point Source Nitrogen and Phosphorus Credits generated in a calendar year available for nutrient allocation compliance.” It is also the intent of this Section to include as Actual Class B Credits those Credits not identified as Expected Class B Credits due to any Preliminary Use of Credits but which are in fact available for Exchange through the Nutrient Exchange during the Reconciliation.

4.8 Modifications Within Planning Period. Notwithstanding the firm commitments for Class A Credits and Class B Credits provided in this Article IV, it is the intent of the Nutrient Exchange to accommodate through each Plan Update requests for modifications affecting the firm elements of the previous Planning Period, provided that the Board determines, in its discretion, that such modification is not reasonably expected to have a material adverse effect on the Nutrient Exchange or its Participants. Consistent with the guiding principles described above, the fact that a modification would result in a decrease in funds from Credit sales shall not preclude the Board from determining that a modification would not have a material adverse effect. In the event of multiple competing modification requests, (i) requests of existing Participants shall have priority over requests of potential new Participants, and (ii) to the extent that it is not feasible to honor all modification requests of existing Participants, the Nutrient Exchange generally intends to address the requests of existing Participants on a pro rata basis with respect to Credits. In order to manage requests for modifications within the Planning Period efficiently and fairly, the Nutrient Exchange shall establish annually a date by which Participants shall submit such requests. The modifications requested by any Participant, if accommodated in the Plan Update in whole or in part, shall be binding on such Participant.

(a) Class A Credit Sale Obligations. Notwithstanding the firm basis of Class A Credit sale obligations, a Class A Seller may decrease its Class A Credit sale obligations through the Plan Update to the extent the Board determines that a sufficient supply of Class A Credits is projected to remain to meet the existing Class A Credit demand of the existing Class A Buyers, and the Board, in its discretion, may accommodate further decreases taking into consideration Expected Class B Credit projections. Any Participant may increase its Class A

Credit sale obligation so long as the resulting Class A Credit supply does not exceed Class A Credit demand.

(b) Class A Credit Purchase Obligations. Notwithstanding the firm basis of Class A Credit purchase obligations, a Class A Buyer may decrease its Class A Credit purchase obligations to the extent the Board determines that Class A Credit demand exceeds Class A Credit supply. Any Participant may increase its Class A Credit purchase obligation to the extent of Class A Credit supply, and the Board, in its discretion, may accommodate further increases taking into consideration Expected Class B Credit projections.

(c) Class B Credits. As provided above in Section 4.7, Expected Class B Credits is a projection only and the Participant's obligation with respect to Class B Credits is limited to providing its Actual Class B Credits to the Nutrient Exchange. Accordingly, through each Plan Update, the Participant at its discretion may modify its projection of Expected Class B Credits for each and every year of the five-year Planning Period covered by the Plan Update.

(d) New Participants. The Nutrient Exchange intends to consider the admission of new Participants depending on whether the Nutrient Exchange anticipates a surplus of Credits or projects a need for or desires additional Credits during the Planning Period. Admission of new Participants shall be at the discretion of the Board and generally subject to the following conditions. When the Plan indicates a surplus of Class A Credits, a new Participant may be included subject to the condition that it may not sell Class B Credits until Year 3 and Class A Credits until Year 5 of the Plan Update that first includes the new Participant. When the Plan indicates a need for additional Class A Credits, a new Participant may be included subject to the condition that it may not purchase Credits until Year 5 of the Plan Update that first includes the new participant. These conditions may be waived or modified in whole or in part by the Board in its discretion.

4.9. Private Exchanges. Sections 4.4 (Expected Net Credits) and 4.7 (Class B Credit Pledge) notwithstanding, to facilitate adequate planning each Participant shall provide reasonable advance notice to the Nutrient Exchange of all Private Exchanges to which it is or will be a party. Such notice shall be made by the deadline in Attachment A for submitting the Facility Data Checklist during the Plan Update process and shall be effective for any Private Exchange for the Compliance Year beginning the next January 1 following such notice (or for any subsequent Compliance Year). The notice shall be on a form to be provided by the Nutrient Exchange and shall identify all parties and the quantity of Credits subject to the Private Exchange. For example, if a Participant desires to enter into a new Private Exchange for Compliance Year 2011, under the current schedule at Attachment A notice would be required by November 1, 2010 and such Private Exchange would be included in the Plan Update covering the Planning Period of Compliance Years 2011 through 2015. Nothing in this Section 4.9 shall affect the firm commitment as to Class A Credit purchases and sales once made by a Participant.

4.10 DEQ Approval. The Nutrient Exchange's goal is to maintain the Exchange Compliance Plan in a manner and form that best serves its Participants and complies with the terms and conditions of the Watershed General Permit. In the event that DEQ were to disapprove a Plan Update in whole or in part, the Nutrient Exchange shall be responsible only for

continuing to endeavor, in consultation with the Participants, to obtain DEQ approval pursuant to 9 VAC 25-820-40 B.

ARTICLE V CREDIT EXCHANGE RECONCILIATION

5.1 Administration of and Participation in Reconciliation. Beginning in 2012 for Compliance Year 2011, the Nutrient Exchange will administer and the Participants will participate in an annual Reconciliation pursuant to the Plan and this Policy for the preceding Compliance Year.

5.2 Annual Permitted Facility Reports. In accordance with the schedule at Attachment A, each Participant shall annually submit to the Nutrient Exchange a copy of the Participant's Annual Report to DEQ required by Part I F of the Watershed General Permit and such other information as may be reasonably requested by the Nutrient Exchange in administering the Reconciliation.

5.3 Initial Reconciliation Report. In accordance with the schedule at Attachment A, the Nutrient Exchange will prepare and distribute to the Participants the Initial Reconciliation Report for the immediately preceding Compliance Year. On a Permitted Facility and river basin-level basis for all Participants, the report shall present in ledger format an accounting of the generation and transfer of Credits within the Nutrient Exchange and among its Participants. The report shall specify for each Permitted Facility its Delivered WLA, Actual Load, Actual Credits, Preliminary Uses of Credits, Actual Net Credits, Class A Credit sales and purchases, and Actual Class B Credits, Credit prices, charges to Buyers, and revenues to Sellers. As applicable, the report will reflect application of the policies and procedures in Sections 5.9 (Initial Upgrades), 5.10 (Waiver of Class A Credit Sales Obligation), 5.11 (Option to Purchase Additional Credits During Reconciliation), and 5.12 (Credit Shortfall Management Procedures).

5.4 Credit Exchanges and Confirmations. The transfer of Credits from Sellers to the Nutrient Exchange, and from the Nutrient Exchange to Buyers, shall be implemented as follows.

(a) Credit Transfers from Sellers. Each year beginning 2012 (or one year later for each year by which DEQ extends the schedule of compliance for any tributary (river basin) and parameter (TN or TP) combination beyond January 1, 2011), Participants shall transfer to the Nutrient Exchange in accordance with the Initial Reconciliation Report and the schedule at Attachment A (i) the quantity of Class A Credits to which they have committed as Sellers and (ii) the quantity of their Actual Class B Credits, if any. Such transfer shall be effective without further action by the Participant and shall be confirmed by the Participant through execution by its Designated Representative of, and submittal to the Nutrient Exchange of, the Seller's Credit Exchange Confirmation Form (Attachment E).

(b) Credit Transfers to Buyers. Each year beginning 2012 (or one year later for each year by which DEQ extends the schedule of compliance for any tributary (river basin) and parameter (TN or TP) combination beyond January 1, 2011), the Nutrient Exchange shall

transfer to Buyers in accordance with the Initial Reconciliation Report and the schedule at Attachment A the quantity of Credits committed to and requested by such Buyers subject to the terms and limitations of this Policy. Such transfer shall be accomplished and confirmed by the Nutrient Exchange through execution and submittal to Buyers of the Buyer's Credit Exchange Confirmation Form (Attachment F). In addition, the Nutrient Exchange shall invoice each Buyer for Credit purchases in accordance with the schedule at Attachment A, and each Buyer shall pay such invoice within forty-five (45) days of the invoice date. Failure to pay such invoice within such time shall require payment by the Participant of an administrative charge of one hundred dollars (\$100.00) plus ten percent (10%) of the amount of the invoice.

5.5 Sales of Surplus Credits to Non-Participants. For any Compliance Year and associated Reconciliation Year, for any river basin and parameter (TN or TP) combination, if the Nutrient Exchange has satisfied all of the needs for Credits for Participants as specified in the Exchange Compliance Plan or as otherwise requested by Participants for Watershed General Permit compliance purposes, and has remaining Credits, the Nutrient Exchange may sell such remaining Credits, in the discretion of the Board, to any Non-Participants requesting and committing to the purchase of such Credits subject to terms established by the Board in accordance with this Policy. The revenue from any Credit sales to Non-Participants or others shall be distributed to the Participants in the manner provided in Section 5.8.

5.6 Final Reconciliation Report. In accordance with the schedule at Attachment A, the Nutrient Exchange will prepare and distribute to the Participants the Final Reconciliation Report for the immediately preceding Compliance Year to reflect any adjustments subsequent to the Initial Reconciliation Report for sales of surplus Credits to Non-Participants or as otherwise may be appropriate.

5.7 Sources of Funds. The sources of funds for the Nutrient Exchange's purchase of Credits from Sellers shall be the funds paid by Buyers, the funds paid by any Non-Participants or others purchasing Credits through the Nutrient Exchange, and any other revenues accruing to the Nutrient Exchange that the Board designates for this purpose.

(a) Clearing Account. All such funds shall be segregated for accounting purposes from any other funds of the Nutrient Exchange in a Clearing Account for the purposes of holding prior to distribution and of distributing such funds to Sellers in the manner provided in this Policy.

(b) Prices Paid by Buyers and Non-Participants. The prices for Credits shall be (i) for Buyers of Credits in the quantities scheduled in the Plan as Class A Credit purchases the Class A Credit price on Attachment B, (ii) for Participants making additional Credit purchases beyond those scheduled in the Plan as Class A Credit purchases, the Class A Credit Price from Attachment A multiplied by a premium of 1.5, and (iii) for any Non-Participant or others for purchases as provided in Section 5.5, the Class A Credit Price from Attachment A multiplied by a premium which shall be established by the Board but which shall not be less than 2.0, unless the Board in its discretion determines that a lesser premium is in the best interests of the Nutrient Exchange and its Participants.

5.8 Disbursement of Funds to Sellers. The Nutrient Exchange shall disburse funds to Sellers from the Clearing Account as follows.

(a) Timing. Funds shall be disbursed to Sellers each Reconciliation Year in accordance with the schedule at Attachment A, or as soon thereafter as may be practical.

(b) Amounts Paid to Sellers. Ninety (90) percent of the amount in the Clearing Account and due to the Nutrient Exchange from Buyers for each Compliance Year in the Reconciliation Year shall be paid to the Class A Sellers, pro rata in proportion to the quantity of such Class A Credits transferred by each. The remaining ten (10) percent shall be paid to those Participants transferring Class B Credits to the Nutrient Exchange, pro rata as to the quantity of such Class B Credits transferred by each. However, if under the preceding calculation the amount paid by the Nutrient Exchange for each Class B Credit would exceed the amount paid by the Nutrient Exchange for each Class A Credit, the amount paid for Class A and Class B Credits shall be equal and shall be paid to Sellers pro rata in proportion to the quantity of Credits transferred by each.

(c) Clearing Account Shortfalls Due to Non-Payment of Buyers. To the extent that any Buyer or other purchaser of Credits from the Nutrient Exchange fails to remit to the Nutrient Exchange any amounts for Credits when due, and such shortfall interferes with the distribution of funds as provided herein, in addition to the administrative charge provided in Paragraph 5.4(b) the Board may in its discretion (i) invalidate the Credit transfer to the non-paying person(s) and redistribute such Credits as provided in this Policy, (ii) extend additional time for payment on such terms as the Board may determine, or (iii) take other actions in the best interests of the Nutrient Exchange and the Participants. In any such event, the Board may further in its discretion either delay payments otherwise provided for in this Section 5.8, or make partial payments, pro rata as provided herein, pending resolution of such matters.

5.9 Initial Upgrades. The Nutrient Exchange and the Participants acknowledge that for the initial Permitted Facility wastewater treatment upgrades necessary to implement the Exchange Compliance Plan for any river basin beginning January 1, 2011 (or such later initial year for compliance as DEQ may approve), the availability of engineering design services, the availability of construction services, availability of Water Quality Improvement Fund grant funds, extreme weather and other factors may make a Participant's provision and transfer to the Nutrient Exchange of Class A Credits impracticable and beyond the reasonable control of such Participant. In any case in which such transfer to the Nutrient Exchange of Class A Credits is determined by the Board in its discretion to be impracticable and beyond the reasonable control of such Participant, such not-at-fault Participant shall be relieved of its obligations for the transfer to the Nutrient Exchange of Class A Credits, but only the extent that such Credits are actually not available to such Participant and only for the period of time of the initial unavailability. Any resulting Credit shortfalls impacting the ability to supply Credits to Class A Buyers shall be managed in accordance with Section 5.12 (Credit Shortfall Management Procedures). In addition, the Nutrient Exchange shall request DEQ's concurrence that neither the not-at-fault Class A Seller(s) as defined in this Section 5.9 nor the not-at-fault waiting Buyer(s) will be deemed to be in noncompliance or subject to enforcement solely because of such circumstances and related Credit supply impacts.

5.10 Waiver of Class A Credit Sales Obligation. If during the Reconciliation Year sufficient Credits exist to meet the demands of all Participants for the Compliance Year, a Class A Seller's Class A Credit sales obligation shall be waived to the extent of its Class A Credit shortfall.

5.11 Option to Purchase Additional Credits During Reconciliation. If during the Reconciliation Year sufficient Credits exist to meet the demands of all Participants for the Compliance Year, after waivers of Class A Credit sale obligations pursuant to Section 5.10 any Participant desiring to purchase additional Credits for unanticipated needs (*i.e.*, Credits required beyond the Participant's Class A Credit purchases scheduled in the Exchange Compliance Plan) may purchase such Credits from the Nutrient Exchange at the premium price applicable to Participants as specified in Paragraph 5.7(b)(ii) to meet its Watershed General Permit compliance obligations.

5.12 Credit Shortfall Management Procedures.

(a) If insufficient Credits exist to meet the demands of all Participants, Class A Buyers shall have priority access to available Credits to the extent provided in this Paragraph 5.12(a). To the extent of the available Credits, Credits shall first be transferred to Class A Buyers in a quantity sufficient to satisfy either the amount of Credits scheduled as a Class A Credit purchase in the Exchange Compliance Plan for each Class A Buyer or the amount of Credits actually needed by the Class A Buyer to comply with its Delivered WLA, whichever is less for each Class A Buyer (its "Class A Shortfall Distribution Quantity"). Such distribution to Class A Buyers and any subsequent distribution to Participants shall be implemented in accordance with either Paragraph 5.12(b) or Paragraph 5.12(c), as appropriate.

(b) If the distribution of available Credits pursuant to Subparagraph 5.12(a) is insufficient to satisfy all Class A Buyers in the manner and to the extent provided in Subparagraph 5.12(a), the following procedure shall apply: (i) all available Credits will be distributed among the Class A Buyers pro rata in proportion to the Class A Shortfall Distribution Quantity of each, and (ii) all Class A Sellers that failed to generate and transfer all of the Class A Credits that such Sellers had agreed to provide pursuant to Section 4.5 of this Policy and scheduled in the Plan shall make up their allocable share of any remaining shortfall of Class A Credits to the extent required to meet the total Class A Shortfall Distribution Quantity of all Class A Buyers, pro rata in proportion to each such Class A Seller's Class A Credit sales shortfall, by acquiring Credits from outside of the Nutrient Exchange, from the Water Quality Improvement Fund administered by DEQ, or as otherwise allowed under applicable law.

(c) If the distribution of available Credits pursuant to Subparagraph 5.12(a) is sufficient to satisfy all Class A Buyers in the manner and to the extent provided in Subparagraph 5.12(a), any remaining Credits shall be transferred in equal shares to all Participants who desire such Credits; provided, however, that no Participant may purchase more Credits than required for compliance of its Permitted Facility under the Watershed General Permit. Each Participant with a remaining need for Credits thereafter shall be solely responsible for acquiring sufficient

additional Credits from outside of the Nutrient Exchange, from the Water Quality Improvement Fund administered by DEQ, or as otherwise allowed under applicable law.

(d) In the discretion of the Board, the Nutrient Exchange may assist the Participants in acquiring sufficient additional Credits from outside of the Nutrient Exchange, from the Water Quality Improvement Fund administered by DEQ, or as otherwise allowed under applicable law; however, the Nutrient Exchange shall have no liability whatsoever for or related to a Credit shortfall regardless of the cause thereof.

ARTICLE VI MISCELLANEOUS PROVISIONS

6.1 Amendments. This Policy may be amended from time to time in accordance with Article VII of the Bylaws.

6.2 Administrative Obligations. As a condition of continuing participation and without limiting any other provision of this Policy, each Participant shall (a) execute and comply with terms of the Nutrient Credit Services Agreement; (b) pay any applicable fees in a timely manner, and (c) pay its Credit purchase costs as provided herein in a timely manner.

6.3 Compliance with Watershed General Permit; Exchange Not Liable. Each Participant shall remain responsible for ensuring its own compliance with the Watershed General Permit. Neither the Nutrient Exchange, nor its officers, governors (directors), technical consultants or other advisors shall be responsible for assuring an adequate supply of Credits or for any other costs or damages of any kind related in any way to the operation of the Nutrient Exchange, including consequential damages.

6.4 No Waiver. No failure to exercise, and no delay in exercising, any right, power or privilege under this Policy by the Nutrient Exchange shall operate as a waiver, nor shall any single or partial exercise of any right, power or privilege hereunder preclude the exercise of any other right, power or privilege. No waiver by the Nutrient Exchange of any breach of any provision shall be deemed to be a waiver of any preceding or succeeding breach of the same or any other provision, nor shall any waiver be implied from any course of dealing.

ATTACHMENTS

- A Annual Schedule for Plan Update and Reconciliation Processes
- B Credit Price Schedule
- C Facility Data Checklist
- D Compliance Deadline Statement
- E Seller's Credit Exchange Confirmation Form
- F Buyer's Credit Exchange Confirmation Form

ATTACHMENT A

ANNUAL SCHEDULE

<u>Action</u>	<u>Deadline</u>	<u>Party Responsible</u>	<u>Policy Section(s)</u>
Submit Class A Credit Sale/Purchase Obligation Change Requests (OPTIONAL) (only for changes proposed to current Planning Period, not for new Year 5)	Sept. 1	Participant	4.8
Submit Facility Data Checklist (Attachment C) for Plan Update Development	Sept. 1	Participant	4.3
Submit Annual Report to Nutrient Exchange (and DEQ per 9 VAC 25-820-70 Part I F)	Feb. 1	Participant	5.2
Submit Exchange Compliance Plan Update to DEQ	Feb. 1	Exchange	4.1, 4.10
Prepare Initial Reconciliation Report	Mar. 7	Exchange	5.3
Distribute Credit Exchange Confirmation Forms to Sellers	Mar. 15	Exchange	5.4(a)
Distribute Invoices to Buyers	Mar. 15	Exchange	5.4(b)
Submit Credit Exchange Confirmation Forms to Nutrient Exchange	April 15	Sellers	5.4(a)
Invoice Payments Due from Buyers	May 1	Buyers	5.4(b), 5.7
Distribute Signed Credit Exchange Confirmation Forms to Buyers	May 20	Exchange	5.5(b)
Certify Credit Purchases to DEQ (9 VAC 25-820-70 Part J 2 f)	June 1	Buyers	N/A
Prepare Final Reconciliation Report	June 15	Exchange	5.4
Disbursement of Funds to Participants for Credit Sales	Aug. 1	Exchange	5.8

ATTACHMENT B

CREDIT PRICE SCHEDULE

Compliance Year	Reconciliation Year	Class A Credit Purchase Price (\$/Credit)		Price Status (Firm or Estimate)
		<i>Nitrogen</i>	<i>Phosphorus</i>	
2011	2012	\$2.00	\$4.00	Firm
2012	2013	\$2.00	\$4.00	Firm
2013	2014	\$2.15	\$4.30	Firm
2014	2015	\$2.65	\$4.60	Firm
2015	2016	\$3.05	\$4.93	Firm
2016	2017	\$3.50	\$5.27	Firm
2017	2018	\$3.75	\$5.65	Firm
2018	2019	\$3.78	\$5.70	Firm

ATTACHMENT C

FACILITY DATA CHECKLIST FOR 2014 EXCHANGE COMPLIANCE PLAN ANNUAL UPDATE

Participant (Owner) Name: _____

Facility Name: _____

Designated Representative (or Alternate) Name: _____

Contact Phone: _____

Contact Email: _____

(please enter information only in cells with blue text)

After completing the checklist, please save the file according to the following format: Participant Name-Facility Name dd-mm-year (where date in file name is date of email submittal) and email back to Cody Stanger, cstanger@grg-ltd.com (**NEW EMAIL**, note only one 'r' in last name)

NITROGEN Data Checklist	New 5th Year	Estimates Beyond 5-year Planning Period		
	2018	2019	2020	2021
Projected Flow (mgd)	0.00	0.00	0.00	0.00
Projected mg/L (avg. annual)	0.00	0.00	0.00	0.00
End-of-Pipe Pounds	0	0	0	0
Delivery Factor ¹	0.00	0.00	0.00	0.00
Delivered Pounds	0	0	0	0
Delivered WLA ¹	0	0	0	0
Expected Credits	0	0	0	0
Adjustments In (Out) ²	0	0	0	0
Net Expected Credits	0	0	0	0
Class A Sales (Purchases)³	0	0	0	0
Expected Class B Credits	0	0	0	0

PHOSPHORUS Data Checklist	New 5th Year	Estimates Beyond 5-year Planning Period		
	2018	2019	2020	2021
Projected Flow (mgd) ⁴	0.00	0.00	0.00	0.00
Projected mg/L (avg. annual)	0.00	0.00	0.00	0.00
End-of-Pipe Pounds	0	0	0	0
Delivery Factor ¹	0.00	0.00	0.00	0.00
Delivered Pounds	0	0	0	0
Delivered WLA ¹	0	0	0	0
Expected Credits	0	0	0	0
Adjustments In (Out)	0	0	0	0
Net Expected Credits	0	0	0	0
Class A Sales (Purchases)	0	0	0	0
Expected Class B Credits	0	0	0	0

1 - Facility-specific Delivery Factors and Delivered WLAs as shown on DEQ's revised Watershed General Permit Registration List

2 - Adjustments include either positive or negative Credit amounts that reflect Private Exchanges, Bubble Exchanges, or WQIF-held Credits

3 - If showing positive value for Net Expected Credits, enter the number of Class A Credits committed for sale (enter 0 if no Class A Credits are committed for sale).

3 - If showing negative value for Net Expected Credits, enter the same value in this row to indicate Class A Credit purchase commitment (consistent with Credit Exchange Policy).

4 - Projected flows for the Phosphorus Credit forecast are set equal to those used to generate the Nitrogen Credit forecast

ATTACHMENT D

**COMPLIANCE STATEMENT FOR FACILITIES SUBJECT TO REDUCED
WASTELOAD ALLOCATIONS IN CHESAPEAKE BAY TMDL**

Facility (Or Owner Bubble) Name: _____

Check One:

_____ James River TN Compliance

_____ York River TP Compliance

Compliance Information Required by 9 VAC 25-820-40 A 2 (Check Option 1 or Option 2)

_____ Option 1 (9 VAC 25-820-40 A 2 b): Permittee hereby requests WLA to be effective as of January 1, 2012.

_____ Option 2 (9 VAC 25-820-40 A 2 a): Additional capital project(s) is needed to ensure continued compliance with the WLA through the applicable compliance schedule deadline for the tributary. (Note: Checking Option 2 does not preclude use of credit purchase as means of compliance under II.B.)

If Option 2 is checked, briefly describe need for additional projects:

Implementation Schedule

1. Does permittee anticipate using credit purchase to comply?

_____ NO _____ YES

2. Is permittee implementing a capital project to comply?

_____ NO _____ YES

(If YES, compliance is required as soon as possible but no later than the applicable tributary compliance schedule deadline.)

3. Capital Project Milestone Schedule (Specify estimated date for each milestone. For bubbles, specify facility name(s) and list multiple facility schedules if applicable.)

Engineer selection	_____
PER/CER to DEQ	_____
Plans & Specifications to DEQ	_____
Commence construction	_____
Complete construction	_____
CTO Request to DEQ (POTWs only)	_____

ATTACHMENT E

**SELLER'S CREDIT EXCHANGE CONFIRMATION FORM
COMPLIANCE YEAR 20__**

The execution of this Credit Exchange Confirmation Form confirms a Credit Transfer from the Participant to the Nutrient Exchange pursuant to the Section 5.4(a) of the Credit Exchange Policy of the Nutrient Exchange. Capitalized terms have the meanings provided in the Credit Exchange Policy.

In accordance with the provisions of and subject to the terms and limitations of the Credit Exchange Policy and the Nutrient Credit Services Agreement, the undersigned Participant hereby:

1. Acknowledges receipt of the Initial Reconciliation Report dated _____.
2. Confirms and represents that the Initial Reconciliation Report correctly states for its Permitted Facility(ies) in the Exchange Compliance Plan the amounts of Class A Credits of TN and TP and Class B Credits of TN and TP transferred to the Nutrient Exchange.
3. Acknowledges and confirms the transfer of such Credits in such amounts to the Nutrient Exchange.

To be completed by Participant:

Participant Name (Organization): _____

Designated Representative (Print): _____

Designated Representative Signature: _____

Date: _____

No later than April 15 submit the signed original form to:

Virginia Nutrient Credit Exchange Association, Inc.

ATTN: Secretary

P.O. Box 51

Richmond, VA 23218-0051

ATTACHMENT F

BUYER'S CREDIT EXCHANGE CONFIRMATION FORM

The execution of this Credit Exchange Confirmation Form confirms a Credit Transfer to the Participant from the Nutrient Exchange pursuant to the Section 5.4(b) of the Credit Exchange Policy of the Nutrient Exchange. Capitalized terms have the meanings provided in the Credit Exchange Policy.

In accordance with the provisions of and subject to the terms and limitations of the Credit Exchange Policy and the Nutrient Credit Services Agreement, the Nutrient Exchange hereby transfers to the Participant identified herein the following amounts of Credits of TN and TP:

Participant Name (Organization): _____

River Basin (One Per Form): _____

Compliance Year: _____

TN Credits (Pounds): _____

TP Credits (Pounds): _____

VIRGINIA NUTRIENT CREDIT EXCHANGE ASSOCIATION, INC.

By: _____

Title: _____

Date: _____

For convenience, the next page of this form made be used, subject to DEQ's approval, by the Participant to make its required certification of credit acquisition to DEQ.

**BUYER'S CREDIT EXCHANGE NOTIFICATION TO DEQ
PURSUANT TO PART I J 2 f OF THE GENERAL PERMIT
FOR TOTAL NITROGEN AND TOTAL PHOSPHORUS DISCHARGES AND
NUTRIENT TRADING IN THE CHESAPEAKE BAY WATERSHED IN VIRGINIA
9 VAC 25-820-70**

General Permit Registration No.: _____

Permittee Name: _____

Pursuant to Part I J 2 f of the Watershed General Permit, the above-named Permittee, a Participant in the Virginia Nutrient Credit Exchange Association, Inc., hereby certifies that it has acquired sufficient Credits to satisfy its compliance obligations. The Credit Exchange Confirmation Form on the reverse side of this notification form documents the quantity of Credits of TN and TP transferred from the Nutrient Exchange to the Participant for the Compliance Year.

I certify under penalty of law that this notification and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Principal Executive Officer
or Authorized Agent: _____

Typed or Printed Name: _____

Signature: _____

Area Code/Phone Number: _____

Date: _____

APPENDIX A

DEQ Approval Letters





COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
Street address: 629 East Main Street, Richmond, Virginia 23219
Mailing address: P.O. Box 1105, Richmond, Virginia 23218
TDD (804) 698-4021
www.deq.virginia.gov

Douglas W. Domenech
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4020
1-800-592-5482

December 18, 2013

Mr. Frank W. Harksen, President
Virginia Nutrient Credit Exchange Association, Inc.
P.O. Box 51
Richmond, VA 23218-0051

Re: Exchange Compliance Plan 2013 Annual Update

Dear Mr. Harksen:

We have reviewed the Exchange's February 1, 2013 Compliance Plan Update and the document is approved for implementation under the watershed general permit. We note that members of The Exchange continue to follow and participate in DEQ's reevaluation of the James River Chlorophyll-a criteria. Upon completion of the study DEQ will be establishing final individual wasteload allocations (WLAs) for the significant James River dischargers. As part of that process we will be performing an engineering costs analysis to help establish cost effective and equitable WLAs. We look forward to collaborating with the James River dischargers on the analysis as the final nutrient reduction goals for the James River Basin are developed.

The Exchange and its members are to be congratulated for all the hard work that has made meeting and maintaining the Chesapeake Bay TMDL point source nutrient load caps possible. We look forward to another year of partnering with the Exchange and its members in pursuit of a restored Chesapeake Bay.

Sincerely,

A handwritten signature in black ink that reads 'Frederick K. Cunningham'.

Frederick K. Cunningham, Manager
Office of Water Permitting

cc: Mr. Chris Pomeroy, Esq. – AquaLaw



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Street address: 629 East Main Street, Richmond, Virginia 23219

Mailing address: P.O. Box 1105, Richmond, Virginia 23218

TDD (804) 698-4021

www.deq.virginia.gov

Douglas W. Domenech
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4020
1-800-592-5482

January 22, 2013

Mr. Frank W. Harksen, President
Virginia Nutrient Credit Exchange Association, Inc.
P.O. Box 51
Richmond, VA 23218-0051

Re: Exchange Compliance Plan 2012 Annual Update

Dear Mr. Harksen:

We have reviewed the Exchange's February 1, 2012 Compliance Plan Update and DEQ gives its approval for implementation of the plan under the watershed general permit. Again in 2012, we expect there to be excess credits available in all basins except the Eastern Shore and that the Eastern Shore shortfall can be covered by surplus credits in the Potomac and Rappahannock basins. The Exchange and its members are to be congratulated for all the hard work that has made meeting and maintaining the Chesapeake Bay TMDL point source nutrient load caps possible.

We look forward to another year of partnering with the Exchange and its members in pursuit of a restored Chesapeake Bay.

Sincerely,

A handwritten signature in black ink that reads 'Frederick K. Cunningham'.

Frederick K. Cunningham
Water Permit Manager
Office of VPDES Permits

cc: Mr. Chris Pomeroy, Esq. – AquaLaw



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Street address: 629 East Main Street, Richmond, Virginia 23219

Mailing address: P.O. Box 1105, Richmond, Virginia 23218

TDD (804) 698-4021

www.deq.virginia.gov

Douglas W. Domenech
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4020
1-800-592-5482

January 26, 2012

Mr. Mark A. Haley, President
Virginia Nutrient Credit Exchange Association, Inc.
P.O. Box 51
Richmond, VA 23218-0051

Re: Exchange Compliance Plan 2011 Annual Update

Dear Mr. Haley:

We have reviewed the Exchange's February 1, 2011 Compliance Plan Update. The Plan is approved with the condition that the items included on the attached summary be addressed as appropriate in either the 2012 Compliance Plan Update due on February 2, 2012 or the Reconciliation for Compliance Year 2011 report due by June 1, 2012.

A preliminary review of the 2011 DMR data indicates that there are excess credits in all basins except the Eastern Shore and that the Eastern Shore shortfall can be covered by surplus credits in the Potomac and Rappahannock basins. The Exchange and its members are to be congratulated for all the hard work that has made meeting the January 1, 2011 compliance deadline possible.

We look forward to another year of partnering with the Exchange and its members in pursuit of a restored Chesapeake Bay.

Sincerely,

A handwritten signature in cursive script, appearing to read "Frederick K. Cunningham".

Frederick K. Cunningham

Water Permit Manager

Office of Water Permits and Compliance Assistance

cc: Mr. Chris Pomeroy, Esq. – AquaLaw

**EXCHANGE COMPLIANCE PLAN 2011 ANNUAL UPDATE:
ITEMS TO BE ADDRESSED PER DEQ CONDITIONAL APPROVAL**

1. Town of Onancock WWTP

For 2011, the Plan indicates that the Town of Onancock WWTP is using its 0.75 MGD WLAs; however, a CTO has not yet been issued for this design flow. Accordingly, the Plan should apply the 0.25 MGD allocation for 2011. This item should be addressed during Reconciliation for Compliance Year 2011. For later years, the 0.75 MGD WLAs may be applied beginning with the first full Compliance Year following issuance of the CTO.

2. Hanover County Bubble

The Plan indicates that a portion of the Totopotomoy WWTP's 10 MGD WLAs is used for trading outside the Hanover County bubble. DEQ expects any credits generated at other County facilities within the bubble (i.e. Doswell) to be used within the bubble before credits associated with Totopotomoy's pending 3 MGD expansion from 7 MGD to 10 MGD are used (i.e.. until the CTO for 10 MGD issued). This equates to 54,820 lbs/yr of TN and 6,396 lbs/yr of TP. This means that the first 54,820 lbs/yr of TN credits and 6,396 lbs/yr of TP credits that are not used within the Hanover bubble are treated as "WQIF-held." Based on the actual 2011 loads, the Reconciliation for Compliance Year 2011 should include:

	Total Aggregate Delivered WLA	2011 Actual Delivered Load	Gross 2011 Credits	Credits Associated with 3 MGD	WQIF Held Credits	Net Hanover Credits
Total N	210,692	67,251	143,441	54,820	54,820	88,621
Total P	25,156	5,508	19,648	6,396	6,396	13,252

3. Alleghany County

The Lower Jackson WWTP is shown as having a delivered TN WLA of 19,187 lbs/yr when the actual allocation is 8,223 lbs/yr. Likewise the TP delivered WLA is shown as 5,330 lbs/yr rather than 2,284 lbs/yr. Presumably the difference reflects the transfer of the entire Clifton Forge WLA to Lower Jackson WWTP. However the transfer of the Clifton Forge WLA will not occur until completion of the public notice period in February 2012. Therefore, it would be more appropriate to address this item as a Private Exchange in the Reconciliation for Compliance Year 2011.

Additionally, while the WLAs for Lower Jackson WWTP and Clifton Forge WWTP are based on a total capacity of 3.5 MGD, at this time only 2.6 MGD has been constructed. This equates to WQIF held credits of 4,934 delivered lbs/yr TN and 1,371 delivered lbs/yr TP. The WQIF held credits are properly indicated on the TN ledger however they are not included on the TP ledger. WQIF held credits should be accounted for in the Reconciliation for Compliance Year 2011 in a similar manner as with the Hanover County Bubble discussed above.

4. **Town of Culpeper WWTP**

The Plan should be updated to reflect consolidation of the Culpeper County Mountain Run 1.5 MGD WLAs with the WLAs of the expanded 6.0 MGD Town of Culpeper WWTP.

5. **Spotsylvania County Bubble**

While the bubble WLAs are correct, individual WLAs should be updated to reflect the transfer of 1.4 MGD of WLAs from FMC WWTP to Massaponax WWTP.



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
Street address: 629 East Main Street, Richmond, Virginia 23219
Mailing address: P.O. Box 1105, Richmond, Virginia 23218
TDD (804) 698-4021
www.deq.virginia.gov

Douglas W. Domenech
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4020
1-800-592-5482

November 2, 2010

Mr. Mark A. Haley, President
Virginia Nutrient Credit Exchange Association, Inc.
P.O. Box 51
Richmond, VA 23218-0051

Re: Exchange Compliance Plan 2010 Annual Update

Dear Mr. Haley:

We have reviewed the Exchange's February 1, 2010 Compliance Plan Update and DEQ gives its approval for implementation of the plan under the watershed general permit. With numerous upgrades now close to completion, we look forward to compliance with the Total Nitrogen and Total Phosphorus wasteload allocations in 2011. DEQ will be distributing final Discharge Monitoring Reports to all registered facilities early next year. The Exchange and its members are to be congratulated for all the hard work that has made meeting this aggressive deadline possible.

We look forward to another year of partnering with the Exchange and its members in pursuit of a restored Chesapeake Bay.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Frederick K. Cunningham'.

Frederick K. Cunningham
Water Permit Manager
Office of Water Permits and Compliance Assistance

cc: Mr. Chris Pomeroy, Esq. - AquaLaw



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

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L. Preston Bryant, Jr.
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4000
1-800-592-5482

September 24, 2009

Mr. Mark A. Haley, President
Virginia Nutrient Credit Exchange Association, Inc.
P.O. Box 51
Richmond, VA 23218-0051

Re: Exchange Compliance Plan 2009 Annual Update

Dear Mr. Haley:

We have reviewed the Exchange's February 1, 2009 Compliance Plan Update and DEQ gives its approval for implementation of the plan under the watershed general permit. We remain very pleased by the progress being made by the organization and its members. Point source Total Nitrogen and Total Phosphorus delivered loads decreased in each of the five permitted watersheds in 2008.

We share your concern with the lack of trading partners on the Eastern Shore and look forward to working with the Exchange in the next year to address this issue. Finally, our staff has had some discussions with you concerning a few survey responses that appear to be out of date by the time they are compiled and submitted. A few such situations may be inevitable as many facilities have struggled with upgrade decisions in the middle of the economic downturn. We are currently reviewing WQIF records to provide you with a list of apparent discrepancies for use in reviewing the next round of survey responses.

We look forward to another year of partnering with the Exchange and its members in pursuit of a restored Chesapeake Bay.

Sincerely,

A handwritten signature in cursive script, reading "Frederick K. Cunningham".

Frederick K. Cunningham
Water Permit Manager

Office of Water Permits and Compliance Assistance

Cc: Mr. Chris Pomeroy, Esq. - AquaLaw



COMMONWEALTH of VIRGINIA

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L. Preston Bryant, Jr.
Secretary of Natural Resources

David K. Paylor
Director

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April 25, 2008

Mr. Mark A. Haley, President
Virginia Nutrient Credit Exchange Association, Inc.
P.O. Box 51
Richmond, VA 23218-0051

Re: Exchange Compliance Plan 2008 Annual Update

Dear Mr. Haley: *Mark*

We have reviewed the Exchange's February 1, 2008 Compliance Plan Update and DEQ gives its approval for implementation of the plan under the watershed general permit. We are very pleased by the progress being made by the organization and its members. The growth in membership has been impressive and we expect that participation will continue to grow as the January 1, 2011 deadline approaches and more facilities recognize the benefits of membership.

Equally impressive is the reduction in load made in some basins as more and more facilities optimize their operations. The Exchange members managed to operate below their combined TN wasteload allocations in the Potomac and Rappahannock Basins and below their combined TP wasteload allocations in the York and (Lower) James Basins; however we must recognize 2007 was a dry year.

We will continue to monitor and evaluate progress in each basin as noted in my September 7, 2007 letter and Section 7.1 of the annual update. Between the annual compliance plan updates, the WQIF annual reports and the annual load reports we are confident that we will stay on top of this issue and be able to make any schedule adjustments necessary. Also as noted in my September 7, 2007 letter, the conditions in Section 7.2 on the compliance plan do not dictate the terms of DEQ's enforcement policy. However, please rest assured that DEQ too has much invested in the watershed general permit and intends to work cooperatively with all stakeholders to ensure a fair and successful program.

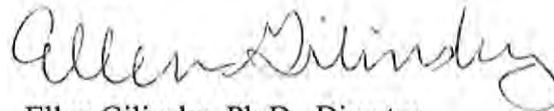
With respect to the Eastern Shore Basin, we share your concern that the basin is not large enough to provide ample trading partners. As you know a legislative change would be required to open up the Eastern Shore market to include purchases from the Potomac and Rappahannock Basins.

Mr. Mark A. Haley
April 25, 2007
Page 2 of 2

We have noted in recent weeks that as WQIF agreements and VPDES permits are negotiated, a few facilities have backed off of the upgrade plans provided to the Exchange. So far none of these changes appear to affect the basin compliance goals. We intend to track these discrepancies to ensure that they do not have an adverse impact on basin compliance as a whole and will continue to instruct such facilities to keep the Exchange informed of any changes in their plans.

In closing, we continue to be encouraged by the progress in the trading program and by the cooperation and efforts of the Exchange and its members in particular. We look forward to another year of this partnership and progress towards a restored Chesapeake Bay.

Sincerely,

A handwritten signature in cursive script that reads "Ellen Gilinsky".

Ellen Gilinsky, Ph.D., Director
Division of Water Quality

Cc: Mr. Chris Pomeroy, Esq. - AquaLaw



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

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L. Preston Bryant, Jr.
Secretary of Natural Resources

David K. Paylor
Director

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1-800-592-5482

September 7, 2007

Mr. Mark Haley
President, Board of Governors
Virginia Nutrient Credit Exchange Association, Inc.
P.O. Box 51
Richmond, VA 23218-0051

RE: Exchange Compliance Plan, July 31, 2007

Dear Mr. Haley:

We have reviewed the Exchange's July 31, 2007 Compliance Plan and your letter of July 30, 2007 and are very pleased by the progress being made by the Exchange members. Especially encouraging are the projections that expected TN and TP loads will be below the aggregate wasteload allocations in all five basins by 2011.

After a careful review of all of the individual compliance plans and the Exchange's compliance plan, DEQ staff recommends that the existing 2011 compliance deadline be retained at this time for both parameters in all five basins. The Class A/Class B trading system adopted by the Exchange has served as an excellent tool for managing trades among its members. However, using only Class A pledges as the basis for determining a river basin compliance date appears inconsistent with the permit condition of achieving compliance "as soon as possible". In establishing "as soon as possible" compliance dates, DEQ must rely on the completion of projects that allow limits to be met and not delay the regulatory deadline due to a reluctance to sign Class A pledges.

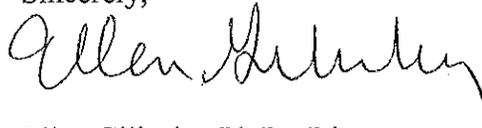
We share your concern with the completion of so many projects on such a tight timeline. However, at this early date it is not possible to determine how quickly individual construction projects will proceed and what the actual capabilities of the upgraded facilities will be. For instance, after a year of progress, the performance of Exchange members was significantly better than what was projected for these facilities in the April 2006 draft report. Future annual compliance plan updates and DEQ's semi-annual WQIF progress reports will add further clarity to these projections and will be used along with the scheduling factors in the Virginia Code and the "as soon as possible" criteria to evaluate the need for basin schedule extensions. Accordingly, we believe that The Exchange's proposed footnote for the watershed general permit compliance table is neither necessary nor does it provide the public or EPA with an

opportunity to participate in regulatory changes to the permit schedules. Should it prove necessary, DEQ will initiate amendment to the permit under the Administrative Process Act to make appropriate revisions to the schedule.

We also share your desire for DEQ to provide a safe regulatory environment for participating owners to commit to buy or sell credits. The very existence of the trading program represents a significant reduction in risk for the permittees. This risk is further reduced by the ability to purchase compliance credits from the WQIF. DEQ has proposed to incorporate into the WQIF cost-control guidelines a provision that credits generated via WQIF-funded upgrades would be made available to other permittees by the facility generating the credits. As suggested in your July 30th letter, we are also pursuing a means of sustaining a pool of WQIF-funded BMP projects that will serve as a source of WQIF credits in each basin.

We greatly appreciate the Exchange's efforts in encouraging and facilitating the cooperation of over 100 facilities to reduce nutrient loads to the Chesapeake Bay, and look forward to our continued working relationship with your organization.

Sincerely,

A handwritten signature in cursive script, appearing to read "Ellen Gilinsky".

Ellen Gilinsky, Ph.D., Director
Division of Water Quality

APPENDIX B

Form of Nutrient Credit Services Agreement



NUTRIENT CREDIT SERVICES AGREEMENT

THIS NUTRIENT CREDIT SERVICES AGREEMENT (this “Agreement”) made by and between the Virginia Nutrient Credit Exchange Association, Inc., (the “Nutrient Exchange”) and the undersigned owner or operator of a Permitted Facility included in the Exchange Compliance Plan (the “Participant”).

BACKGROUND

A. The Participant owns or operates a certain facility or facilities regulated under the General Virginia Pollutant Discharge Elimination System Watershed Permit Regulation for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Bay Watershed in Virginia, 9 VAC 25-820, issued by the State Water Control Board and Department of Environmental Quality (collectively “DEQ”) for a five-year permit term beginning January 1, 2007 or as hereafter modified or reissued from time to time (the “Watershed General Permit”).

B. The Nutrient Exchange is a Virginia non-stock corporation comprised of permittees subject to the Watershed General Permit and is authorized by section 62.1-44.19:17 of the Code of Virginia to assist permittees with Watershed General Permit compliance and to facilitate voluntary nutrient credit trading.

C. Among other requirements, the Watershed General Permit (9 VAC 25-820-70, Part I B) imposes limitations on the discharge of two nutrients, total nitrogen and total phosphorus, from the Participant’s Permitted Facility(ies), and requires the Participant to submit to DEQ by August 1, 2007 and each February 1 thereafter, either individually or through the Nutrient Exchange, a compliance plan (9 VAC 25-820-40 and -70 Part I D) identifying how its Permitted Facility(ies) will comply with such limitations.

D. On behalf of the Participants and based on the data provided and decisions made by the individual Participants, the Nutrient Exchange has developed, and intends to maintain by means of the Watershed General Permit-required annual Plan Updates, a compliance plan for each of Virginia’s five major river basins (collectively the “Exchange Compliance Plan”) to assist the Participants in complying with the Watershed General Permit compliance plan requirement.

E. In addition, Participants in the Exchange Compliance Plan have the option of exchanging nutrient Credits. The Exchange Compliance Plan identifies firm commitments for the purchase and sale of Class A Credits at the request of numerous individual Participants who have elected to participate as Class A Buyers or Class A Sellers, and further establishes a market for and provides all Participants with the option of later purchasing available Class B Credits on more flexible terms to assist in maintaining compliance during unanticipated circumstances.

F. The Nutrient Exchange serves as the central trading exchange to facilitate the execution and reporting of these voluntary nutrient Credit Exchanges by and among its Participants in accordance with its Credit Exchange Policy, the Watershed General Permit and,

when applicable, Water Quality Improvement Fund Grant Agreements entered into by and between a Participant and DEQ.

AGREEMENT

NOW, THEREFORE, in consideration of the mutual covenants and conditions herein, the parties hereto agree as follows:

1. Annual Compliance Plan Updates. The Nutrient Exchange agrees to update the Exchange Compliance Plan annually and submit such Plan Update to DEQ for approval on or before the deadline (currently February 1 of each year) specified in Part I D of the Watershed General Permit. The Plan Update shall include updated information as provided by the Participant in accordance with the Credit Exchange Policy for its Permitted Facility(ies), including revisions to relevant facility-specific information. The Participant shall assist the Nutrient Exchange in the development of the Plan Update by providing information reasonably requested by the Nutrient Exchange in accordance with an annual Plan Update schedule to be established by the Nutrient Exchange.

2. Annual Reports. The Participant agrees to submit to the Nutrient Exchange a copy of the Participant's annual report to DEQ required by Part I F of the Watershed General Permit (9 VAC 25-820-70), and such other information as may be reasonably requested by the Nutrient Exchange to assist in the annual Reconciliation of Credit Exchanges for each Compliance Year.

3. Annual Credit Exchange Reconciliation. The Nutrient Exchange agrees to conduct an annual Reconciliation process for the timely execution of the Credit Exchanges elected by the Participants as specified in the Exchange Compliance Plan. The Participant agrees to implement any previously elected Class A Credit or Class B Credit Exchanges in accordance with the Credit Exchange Policy.

4. Incorporation of Credit Exchange Policy. The provisions of the Credit Exchange Policy are hereby incorporated as if such provisions were fully set out herein. For convenient reference, a copy of the current version of the Policy is attached hereto.

GENERAL PROVISIONS

5. Definitions. Terms not specifically defined herein shall have the definitions provided in the Credit Exchange Policy.

6. Term. The Agreement shall be in effect once signed by both parties and shall have an initial term through and including June 30, 2013. This term is coincident with the five year Planning Period covered by the current Exchange Compliance Plan (January 1, 2008 through December 31, 2012) plus a six month period (January 1, 2013 through June 30, 2013) for the Reconciliation process for the fifth Compliance Year (2012). Such term shall automatically extend by one year, without notice, upon submittal to DEQ of each annual update of the Exchange Compliance Plan beginning with the 2009 Annual Update due February 1, 2009,

unless (a) the Participant withdraws as provided herein or (b) the Nutrient Exchange provides notice to the Participant prior to completion of the Plan Update that it will not extend the term of this Agreement.

7. Amendments to Credit Exchange Policy and Exchange Compliance Plan. The Nutrient Exchange and the Participant acknowledge that the Credit Exchange Policy and the Exchange Compliance Plan may be amended from time to time as a result of changes desired by the Participants, the Exchange Board of Governors or DEQ, possible changes to law, and other factors. It is agreed that changes thereto shall become effective upon notice to the Participants or upon a later effective date as may be specified in such notice.

8. Withdrawal. The Participant shall have the following rights to withdraw from the Nutrient Exchange and the Exchange Compliance Plan.

(a) Withdrawal Upon End of Current Term. This Agreement shall not automatically extend for an additional year upon the Plan Update as provided in Paragraph 6 if the Participant elects to withdraw by providing notice of such election to the Nutrient Exchange at least four years and nine months (57 months) prior to the expiration of the term of this Agreement or before any later date as the Nutrient Exchange may specify during the Plan Update process. In the event of such withdrawal, the Nutrient Exchange shall omit the Participant and its Permitted Facilities from the additional Compliance Year (the new Year 5) added to the Plan during the Plan Update process for that year. For example, if a Participant in the Exchange Compliance Plan for the five year Planning Period covering January 1, 2008 through December 31, 2012 desires to withdraw and not extend this Agreement for an additional year (*i.e.*, through December 31, 2013), the Participant shall provide its withdrawal notice on or before October 1, 2008.

(b) Withdrawal During Term in Response to Policy or Plan Amendment. Notwithstanding any other provision of this Agreement, if any change to the Credit Exchange Policy or the Exchange Compliance Plan pursuant to Paragraph 7 would result in a material adverse effect on the Participant within the five year Planning Period covered by the Exchange Compliance Plan then in effect, the Participant may withdraw from the Agreement by written notice delivered to the Nutrient Exchange within sixty (60) days of such Participant's notice of the change, unless the Nutrient Exchange in its discretion further amends the Credit Exchange Policy or Exchange Compliance Plan within ninety (90) days of receiving such notice in a manner that eliminates the material adverse effect. Such withdrawal shall be effective January 1 of the Compliance Year for which the material adverse effect would first otherwise occur. The Participant shall participate in the Reconciliation and execute all Credit Exchanges planned for each Compliance Year prior to the effective date of withdrawal and pay all Credit costs or receive Credit revenue through and including such Compliance Year. In addition, the Participant shall continue to pay all applicable fees or dues in the ordinary course through the effective date of such withdrawal.

(c) Withdrawal During Term for Other Reasons. In addition to the right to withdraw during the term of this Agreement as provided in Subparagraph 8(b), the Participant shall have the right to withdraw during the term of this Agreement through the Plan Update

process if the following conditions are satisfied: (i) the Board determines that the Participant's withdrawal, alone or in combination with other modification requests, would not have a material adverse effect during the Planning Period on the Nutrient Exchange or any non-withdrawing Participants, (ii) the Participant is and agrees to remain current on all fees and Credit purchase costs as are due or may come due through and including the time of completion of the Reconciliation process for the last Compliance Year for which its Permitted Facilities are covered by the Plan, and (iii) the Participant agrees to cooperate fully in the Reconciliation for the last Compliance Year for which its Permitted Facilities are covered by the Plan. Such withdrawal shall be effective subject to the foregoing conditions upon submittal of the Plan Update by the Nutrient Exchange to DEQ as provided in Paragraph 1 above.

9. Annual Fee. The Nutrient Exchange's obligations under this Agreement shall be contingent on the continued adequate funding of the Nutrient Exchange through fees applicable to and paid by the Participants. Following execution of this Agreement by both parties and by approximately November 2008, the Nutrient Exchange shall issue an invoice to the Participant in the amount shown on Attachment A under the column labeled "Nov. 2008." Such invoice shall also include the amount, if any, invoiced by the Nutrient Exchange to the Participant in approximately March 2008 (as shown under the column labeled "Mar. 2008") but not yet paid by the Participant. The Participant agrees to pay such invoice within forty-five (45) days of the invoice date. Beginning with the 2009 Plan Update, following submittal of each annual Plan Update to DEQ the Nutrient Exchange shall issue an invoice to the Participant for the annual fee. The Participant shall pay such invoice within forty-five (45) days of the invoice date or by July 31 of the calendar year in which the invoice is issued, whichever is later. The Nutrient Exchange agrees to periodically update such schedule to add the fee amount for future years and in so doing intends to keep the annual fees specified therein to the lowest level sufficient for proper operation in the discretion of the Board. The Board anticipates establishing annual fees associated with and payable after the 2009, 2010, 2011 and 2012 Plan Updates, respectively, at less than a maximum of twice the annual fee currently scheduled on Attachment A for Nov. 2008. If an annual fee associated with any Plan Update through and including the 2012 Plan Update were to exceed this maximum anticipated fee, in that event the Participant may withdraw in accordance with the same procedures provided in Paragraph 8(b) of this Agreement. For the 2009 Plan Update, the Board's current estimate is that the annual fee will be the same amount as the Nov. 2008 fee shown on Attachment A. Upon receipt of a written request from the Participant, the Nutrient Exchange agrees to provide the Participant with an accounting of its receipts and disbursements for the two fiscal years immediately preceding the fiscal year in which the written request is received. The Participant agrees to pay applicable fees when due. Failure to pay any annual fee invoice within forty-five (45) days shall result in an administrative charge of one hundred dollars (\$100). In the event the Participant fails to pay any annual fee invoice within ninety (90) days of the invoice date, without limiting any other remedies, the Board in its discretion may terminate this Agreement and eliminate the Participant's Permitted Facilities from the Plan. Such termination shall not relieve the Participant of its obligation to pay any amounts due prior to the date of termination.

10. Waiver of Liability of the Nutrient Exchange. In recognition of the benefits derived by Participants and the nature of the Nutrient Exchange, to the extent permitted by law the Participant waives any causes of action and rights of recovery for liability of the Nutrient

Exchange and its Board of Governors, officers, employees, consultants and other advisors, for any losses or damage to the Participant, other than due to the gross negligence or intentional misconduct thereof.

11. Authorization of Signature. The Participant and the Nutrient Exchange each represent and warrant that its execution of this Agreement by the undersigned is fully authorized and validly performed.

12. No Partnership. Nothing contained in this Agreement shall create any partnership, trust, or joint venture with regard to the Nutrient Exchange and any or all Participants.

13. Third Party Beneficiaries. This Agreement is solely for the benefit of the Nutrient Exchange and its Participants and their permitted successors and assignees and shall not confer any rights or benefits on any other person.

14. Notices. Notices pursuant to Paragraphs 6 and 8 shall be delivered at the following address by U.S. Mail, certified with return receipt, and shall be deemed given when received (or delivery is refused) by the party to whom such notice or communication is directed. A party may change its address for such notice in writing as provided herein.

If to the Nutrient Exchange: Virginia Nutrient Credit Exchange Association, Inc.
ATTN: Secretary
P.O. Box 51
Richmond, Virginia 23218-0051

If to the Participant: _____

with a copy to the Participant's Designated Representative.

Any other notices and communications pursuant to this Agreement shall be made by or to the Participant's Designated Representative, or alternate when appropriate, each as designated the Participant from time to time in accordance with the Bylaws of the Nutrient Exchange.

15. Netting of Payments. The Nutrient Exchange may, but shall not be obligated to, net any payments to the Participant for such Participant's sales of Credits or otherwise with any fees past due, other authorized charges past due, or charges for Credits purchased past due to the Nutrient Exchange.

16. Integration. This Agreement (including the Credit Exchange Policy incorporated herein by reference) contains the entire agreement between the Nutrient Exchange and the Participant as to the subject matter hereof and supercedes all previous written and oral negotiations, commitments, proposals and writings, including those of counsel. Except as

otherwise provided herein or in the Credit Exchange Policy, no amendments may be made except by a writing signed by the parties.

17. Change in Law. Other than as specifically provided in the Credit Exchange Policy, in the event of any material change in applicable laws or regulations the parties shall work together to amend the Agreement to conform to such change in law, while maintaining as closely as practical the provisions and intent of this Agreement.

18. Governing Law; Severability. This Agreement shall be construed in accordance with and governed for all purposes by the laws of the Commonwealth of Virginia. If any term or provision of this Agreement, the deletion of which would not adversely affect the receipt of a material benefit by either party hereunder, shall be held by a court of competent jurisdiction to be invalid or unenforceable, the remainder of this Agreement shall not be affected thereby and each other term and provision of this Agreement shall remain valid and enforceable to the fullest extent permitted by law. It is the intent of the parties to this Agreement, and the parties agree, that in lieu of any term or provision of this Agreement that is illegal, invalid or unenforceable, the parties in good faith shall supply as part of this Agreement a legal, valid and enforceable term or provision as similar to such illegal, invalid or unenforceable term or provision as may be possible.

IN WITNESS WHEREOF, the parties have caused the execution of this Agreement as of the date first written above.

VIRGINIA NUTRIENT CREDIT EXCHANGE ASSOCIATION, INC.

By: _____

Name: _____

Title: _____

Date: _____

PARTICIPANT NAME

By: _____

Name: _____

Title: _____

Date: _____

ATTACHMENT A

ANNUAL FEE SCHEDULE

<u>Class</u>	<u>Participant's Total TN WLA (lbs/yr)</u>	<u>Mar. 2008</u>	<u>Nov. 2008</u>
Very Large	>400,000	\$1,750	\$3,500
Large	400,000- 75,001	\$1,250	\$2,500
Standard	75,000- 15,001	\$750	\$1,500
Small	≤15,000	\$250	\$500

**ANNUAL FEE SCHEDULE UPDATE
(ISSUED: MAY 26, 2010)**

<u>Class</u>	<u>Participant's Total TN WLA (discharge lbs/yr)</u>	<u>Annual Fee</u>
Very Large	>400,000	\$4,250
Large	400,000-75,001	\$3,125
Standard	75,000-15,001	\$1,875
Small	≤15,000	\$625

APPENDIX C

Water Quality Improvement Fund



This appendix provides an update on funding from the Water Quality Improvement Fund for eligible point source nutrient removal technology upgrades. Based on projections considered during the 2013 General Assembly session and the related bonds authorized during that session, the funding shown on the following page (1) addresses the near-term shortfall identified in Appendix C of the Exchange Compliance 2013 Annual Update and (2) is estimated to be sufficient through FY 2016.

<i>FISCAL YEAR</i>	<i>WQIF FUNDS (MILLIONS)</i>
FY 1998	\$10.00
FY 1999	\$37.10
FY 2000	\$27.64
FY 2001	\$10.30
FY 2005	\$12.57
FY 2006	\$80.28
FY 2007	\$197.33
Interest earned through FY 2007	\$18.19
FY 2008	\$5.00
FY 2009	\$0.48
Interest earned FY 2008 & FY 2009	\$3.37
FY 2010 - Bond Proceeds & Interest	\$250.35
FY 2011	\$3.10
FY 2013	\$87.57
FY 2014 Approved Bonds	\$106.00
TOTAL	\$849.28

APPENDIX D

DEQ Director Letter





COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

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Mailing address: P.O. Box 1105, Richmond, Virginia 23218

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L. Preston Bryant, Jr.
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4000
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September 12, 2007

Mr. Mark Haley
President, Board of Governors
Virginia Nutrient Credit Exchange Association, Inc.
P.O. Box 51
Richmond, VA 23218-0051

RE: Exchange Compliance Plan

Dear Mr. Haley:

I understand that the Exchange's July 31, 2007, Compliance Plan projects that expected Total Nitrogen and Total Phosphorus loads will be below the aggregate wasteload allocations in all five basins by 2011. You and the entire association are to be congratulated for your diligence in evaluating the best opportunities for upgrades and trading in each of the Chesapeake Bay basins so that we can retain the existing January 1, 2011, compliance date in the watershed general permit for both nitrogen and phosphorus. This is a significant step for the Exchange, the watershed general permit and trading program, and for the Commonwealth in our continued efforts to clean up the Bay and illustrates your commitment to being a strong partner in the solution.

We know it will be a challenge to complete so many projects on such a tight timeline, and we remain committed to working with you to shepherd these projects to completion. In the meantime, we appreciate the Exchange's efforts to encourage and facilitate the cooperation of over 100 facilities to reduce nutrient loads to the Chesapeake Bay.

Thank you for your commitment to maintaining healthy waters within Virginia.

Sincerely,

A handwritten signature in black ink, appearing to read "David K. Paylor", written over a horizontal line.

David K. Paylor

DKP:d1m